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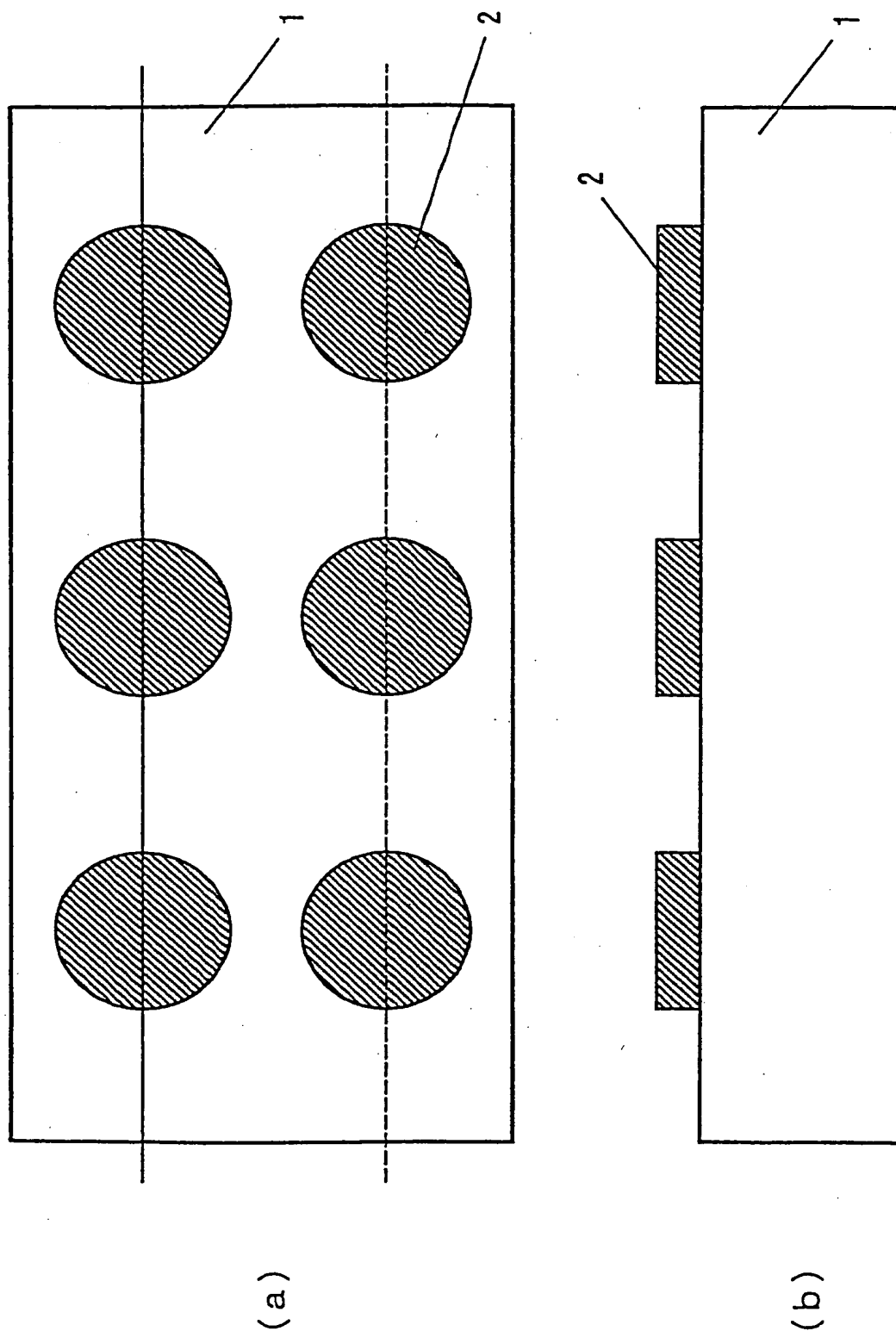
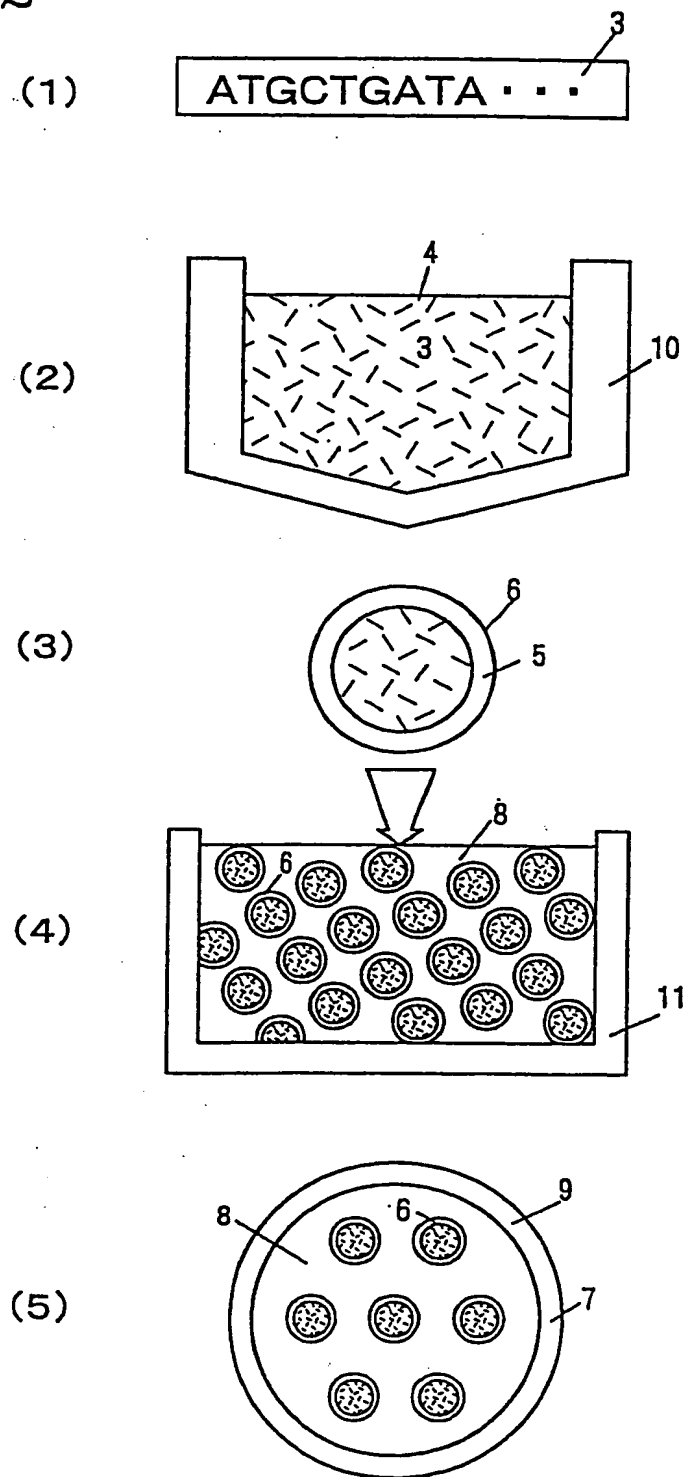


FIG. 1

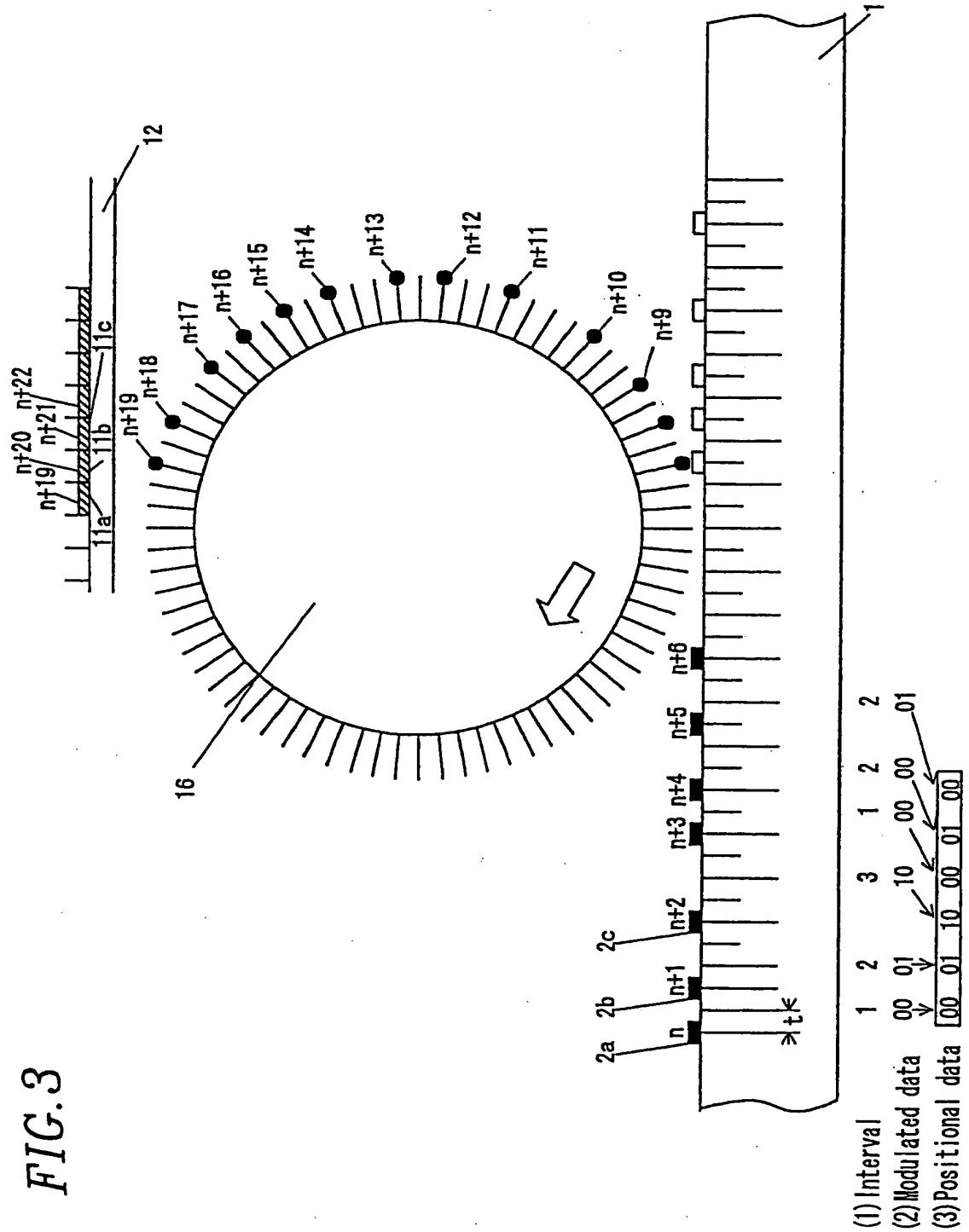
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FIG. 2



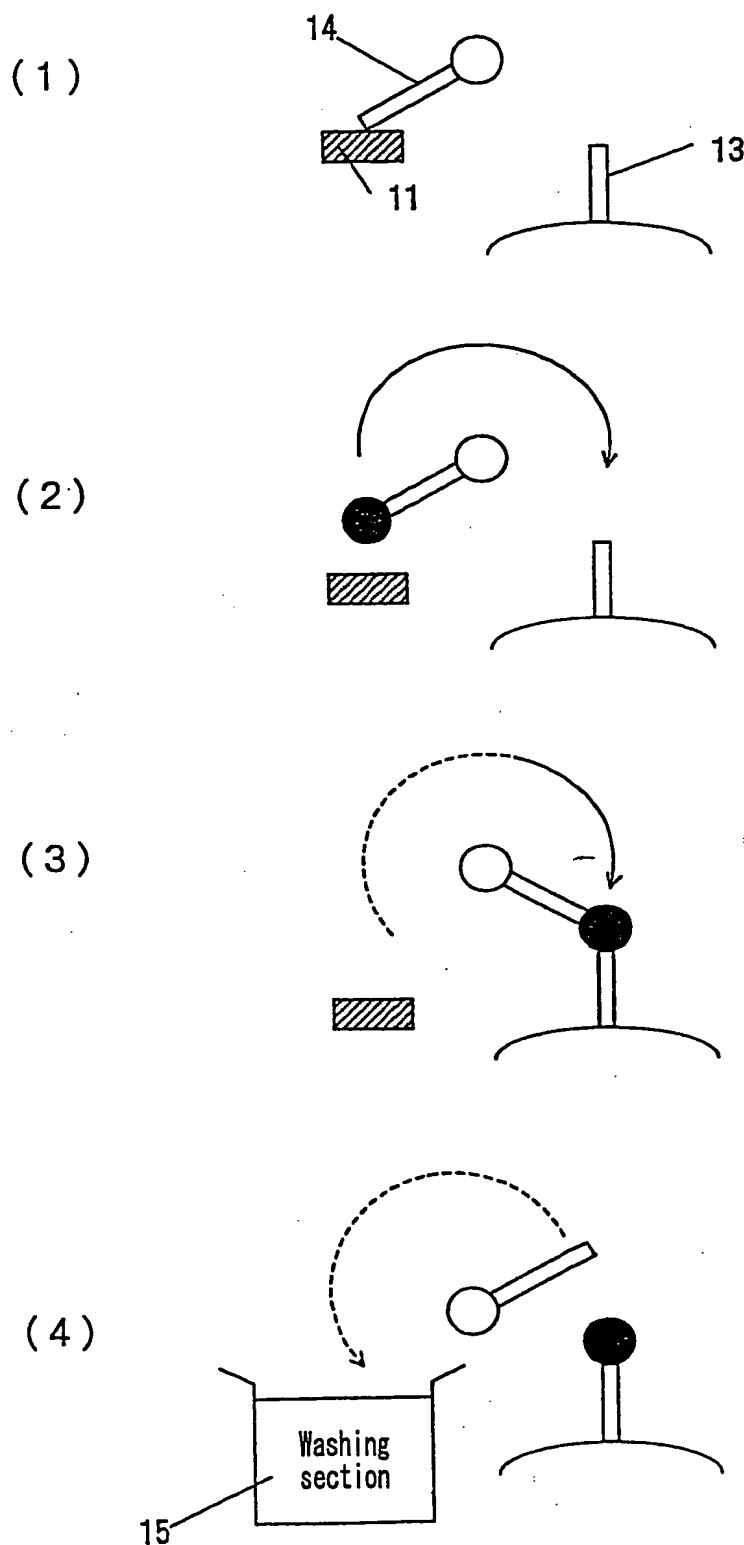
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FIG. 3



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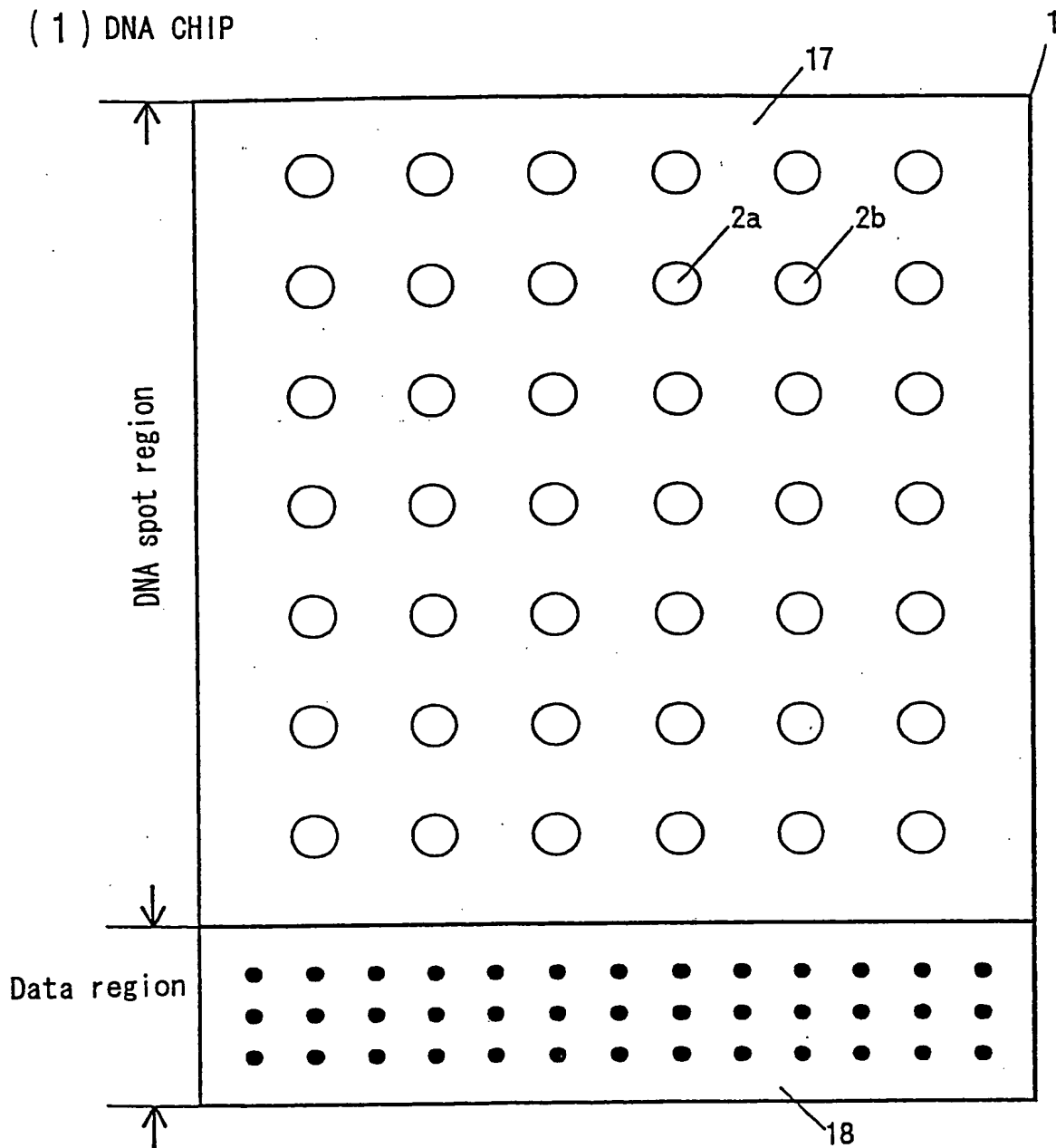
FIG. 4



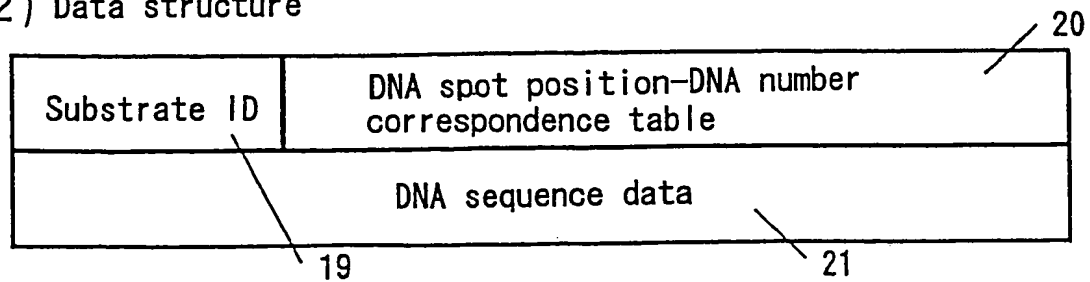
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FIG. 5

(1) DNA CHIP



(2) Data structure



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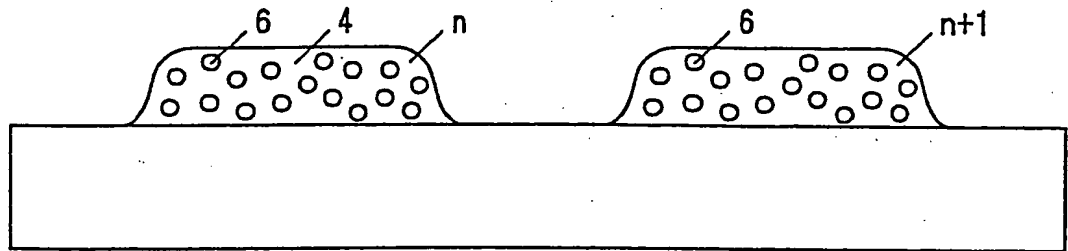
FIG. 6

		DNA substrate attribute data	
		DNA substrate ID number	0012-6426-2469-8792-2879-6237
75 20	Factory-shipped data	Track number=1	Start number and end number of DNA number
			DNA number of first synchronization mark
			DNA number of second synchronization mark
			DNA number of third synchronization mark
		Track number=2	Start number and end number of DNA number
		Track number=260	Start number of DNA number=243142
		Final track number=n	
		DNA number=1	(Cipher of ATGCTGATA . . .)
		DNA number=2	(Cipher of ATGCTGATA . . .)
21 76 77	Sequence information of DNA number (encrypted information)		
		DNA number=244270	(Cipher of ATGCTGATA . . .)
78	First label attribute data	Excited light wavelength and light intensity	
		Fluorescence wavelength and light intensity, half life	
	Second label attribute data	Excited light wavelength and light intensity	
		Fluorescence wavelength and light intensity, half life	

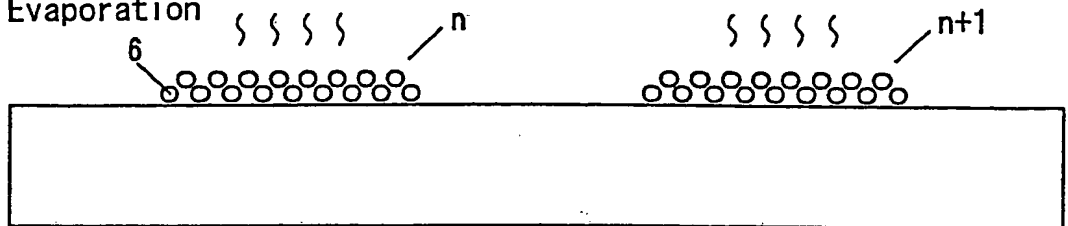
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FIG. 7

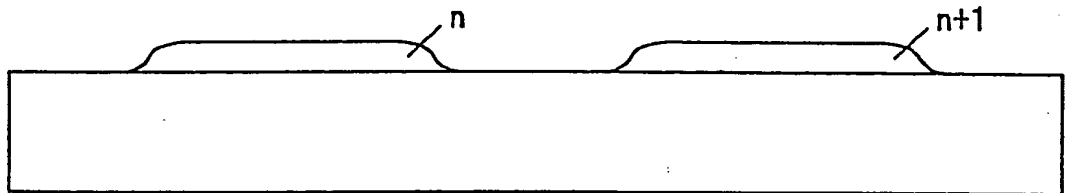
(1)



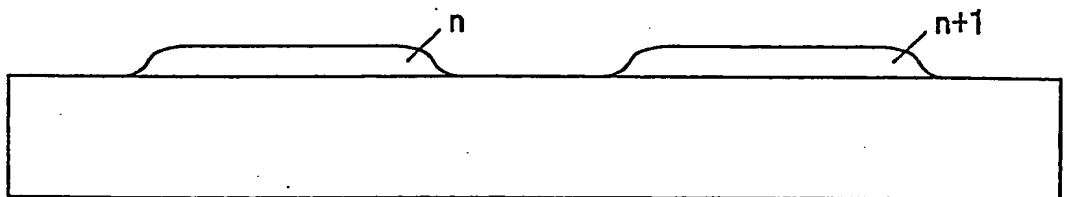
(2) Evaporation



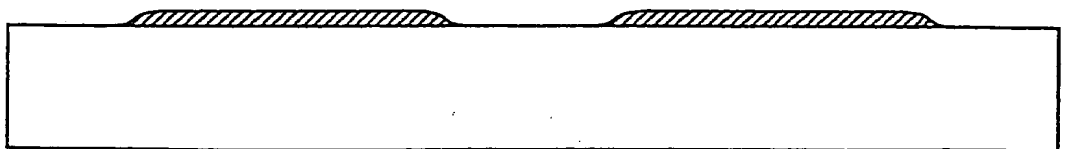
(3) Melting of microcapsule film



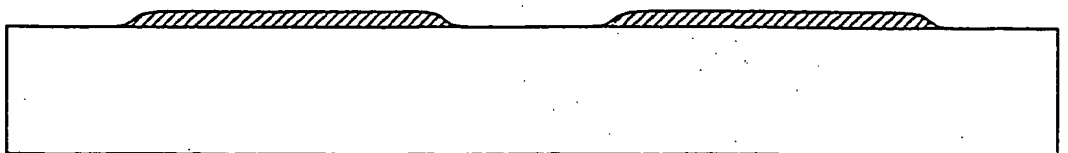
(4) Immobilization



(5) Drying



(6) Washing



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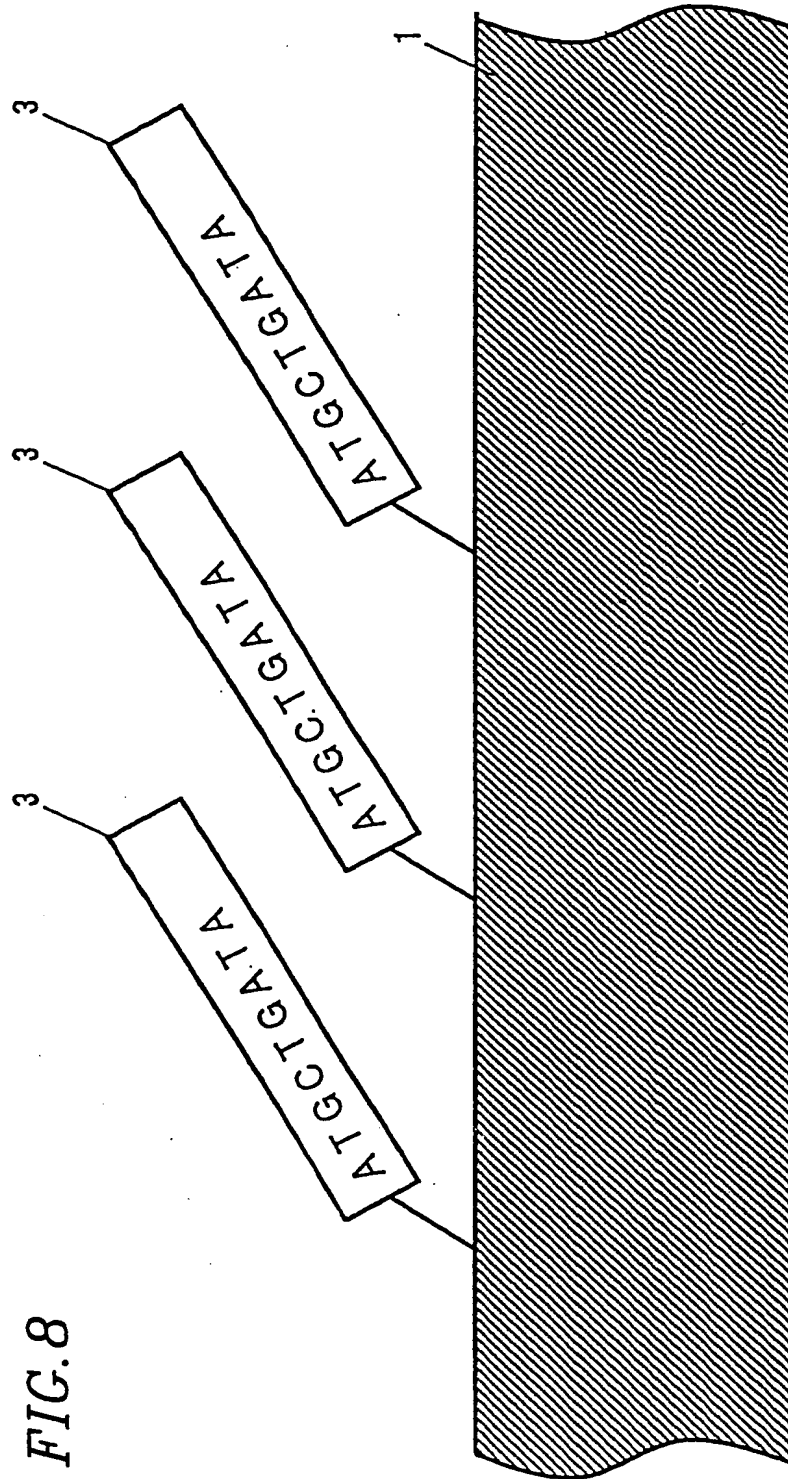
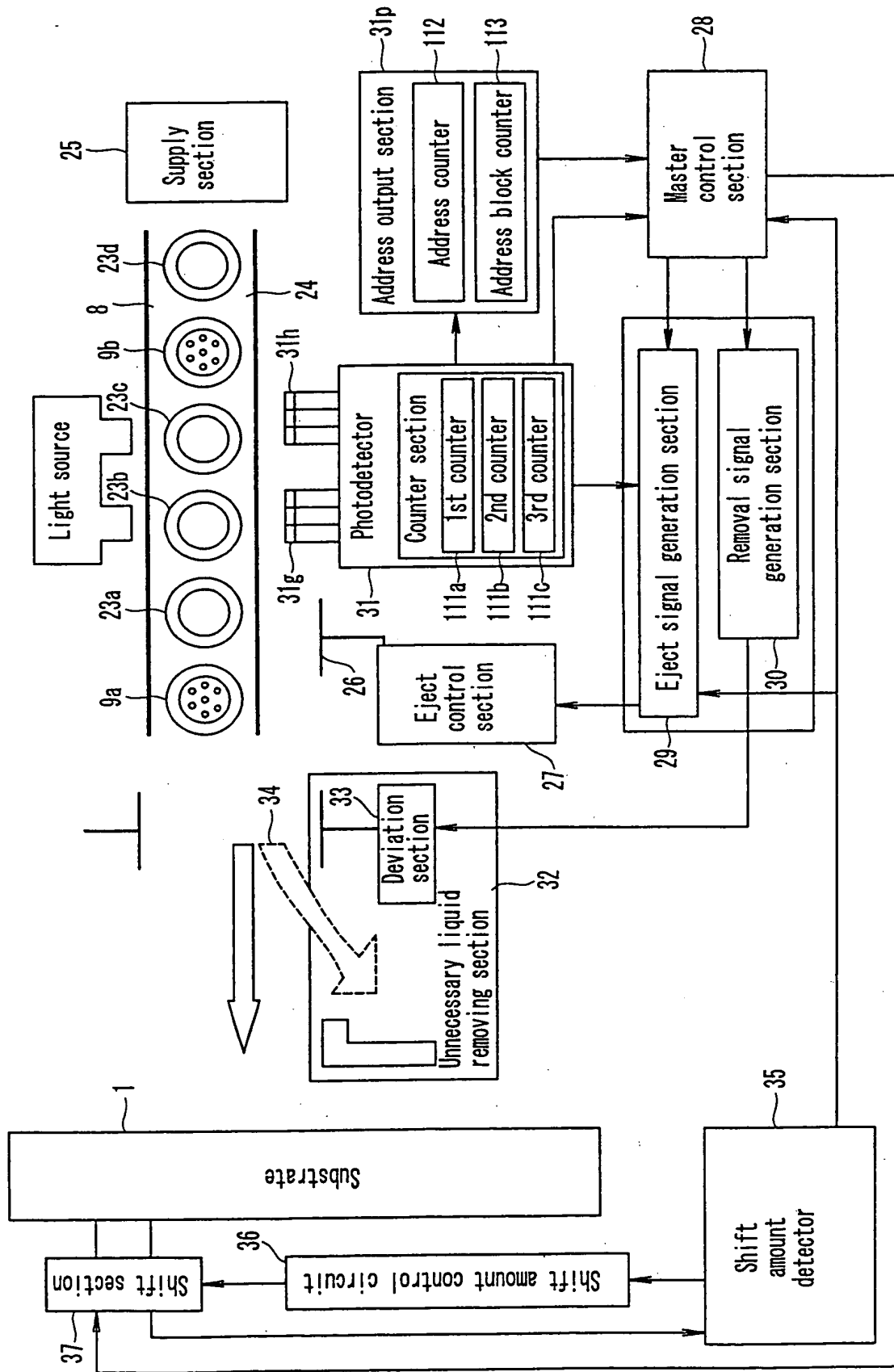


FIG. 8

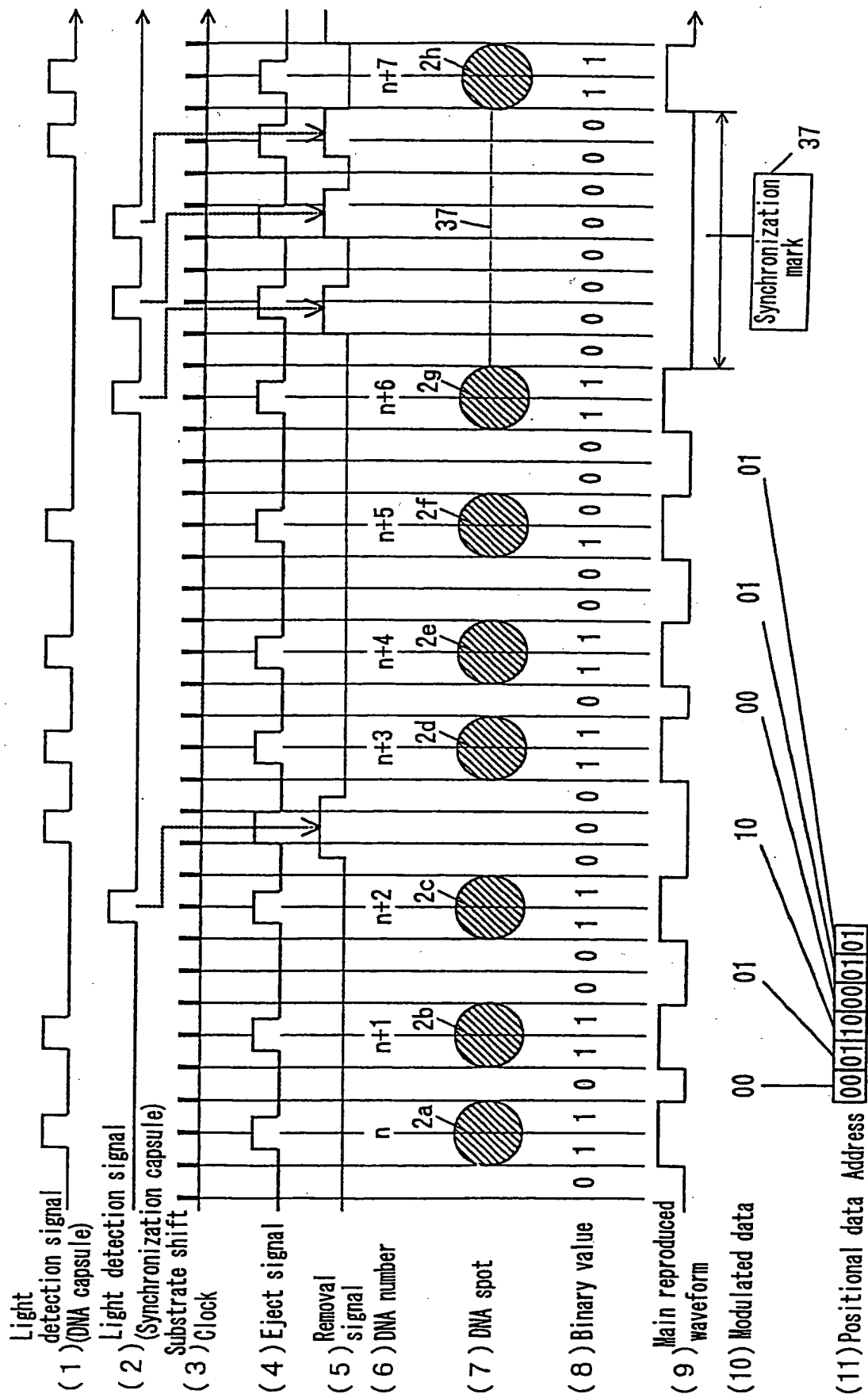
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FIG. 9



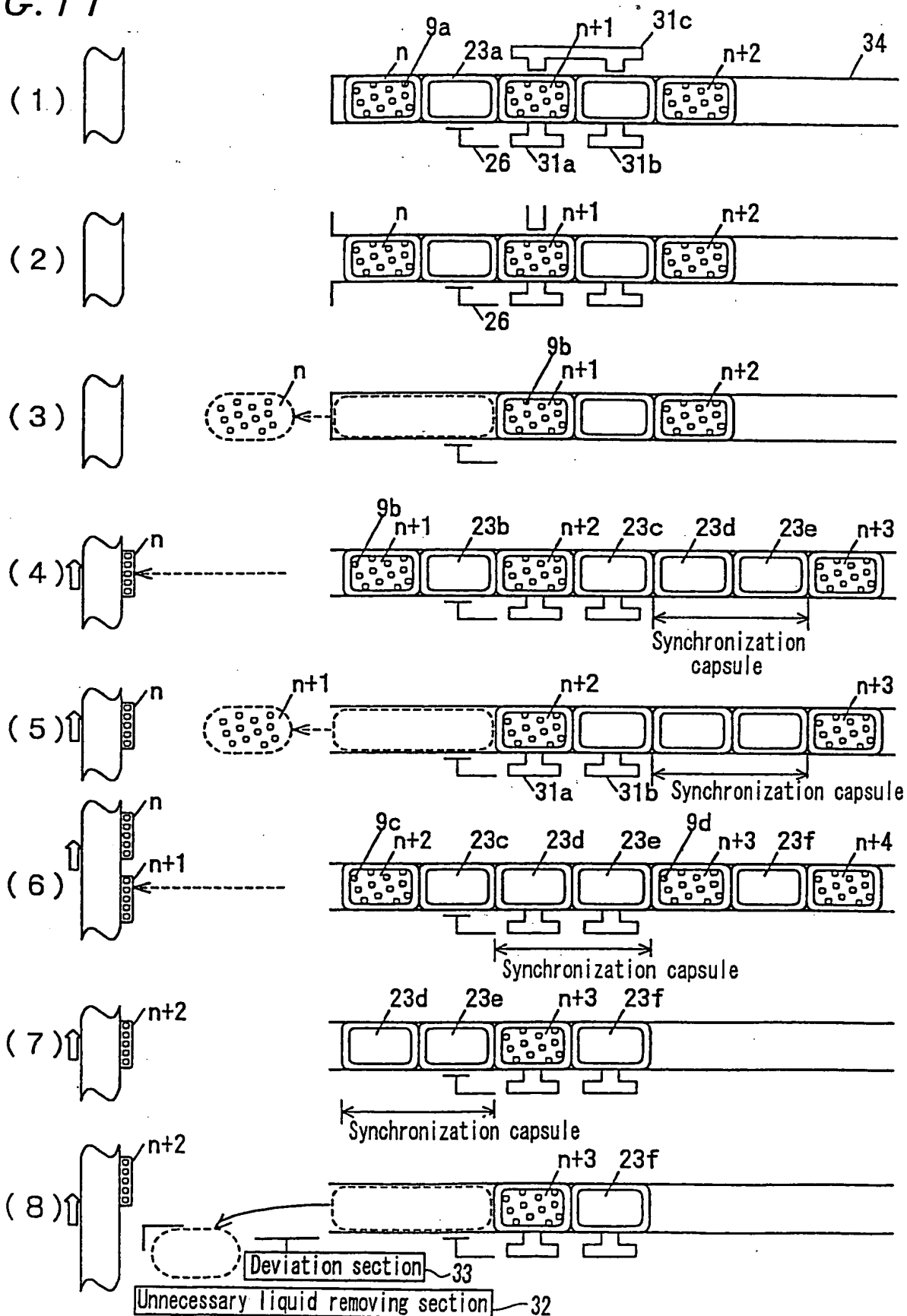
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FIG. 10



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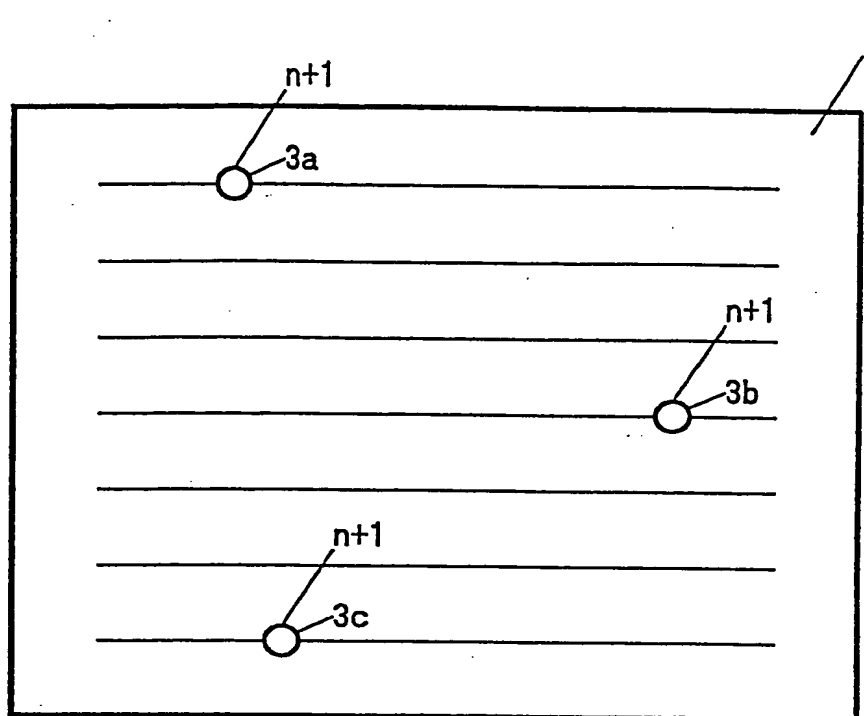
FIG. 11



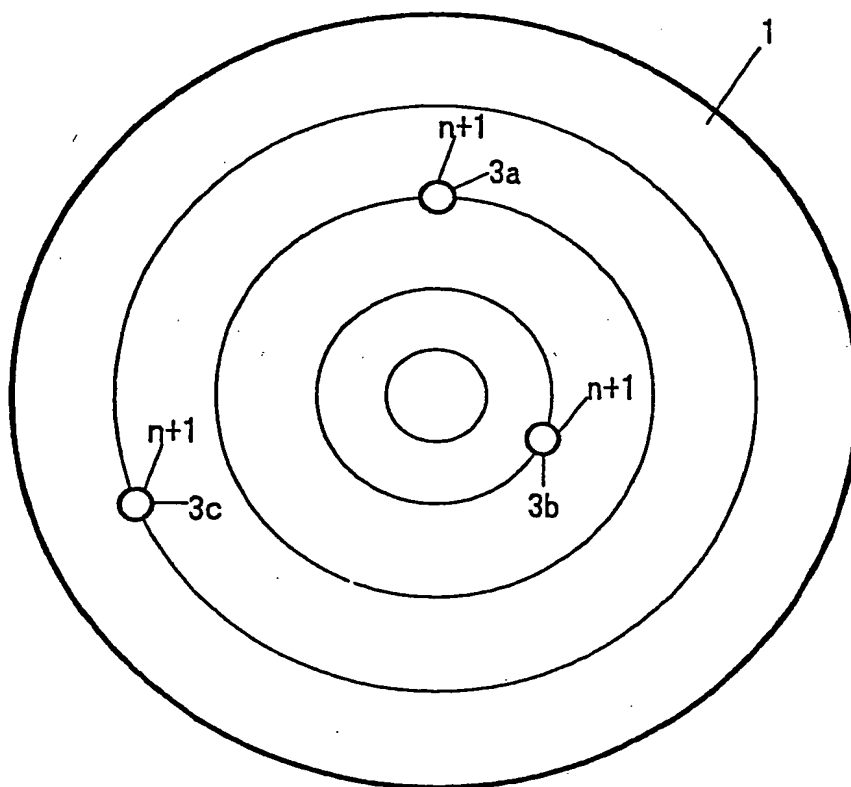
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FIG. 12

(1)
DNA CHIP

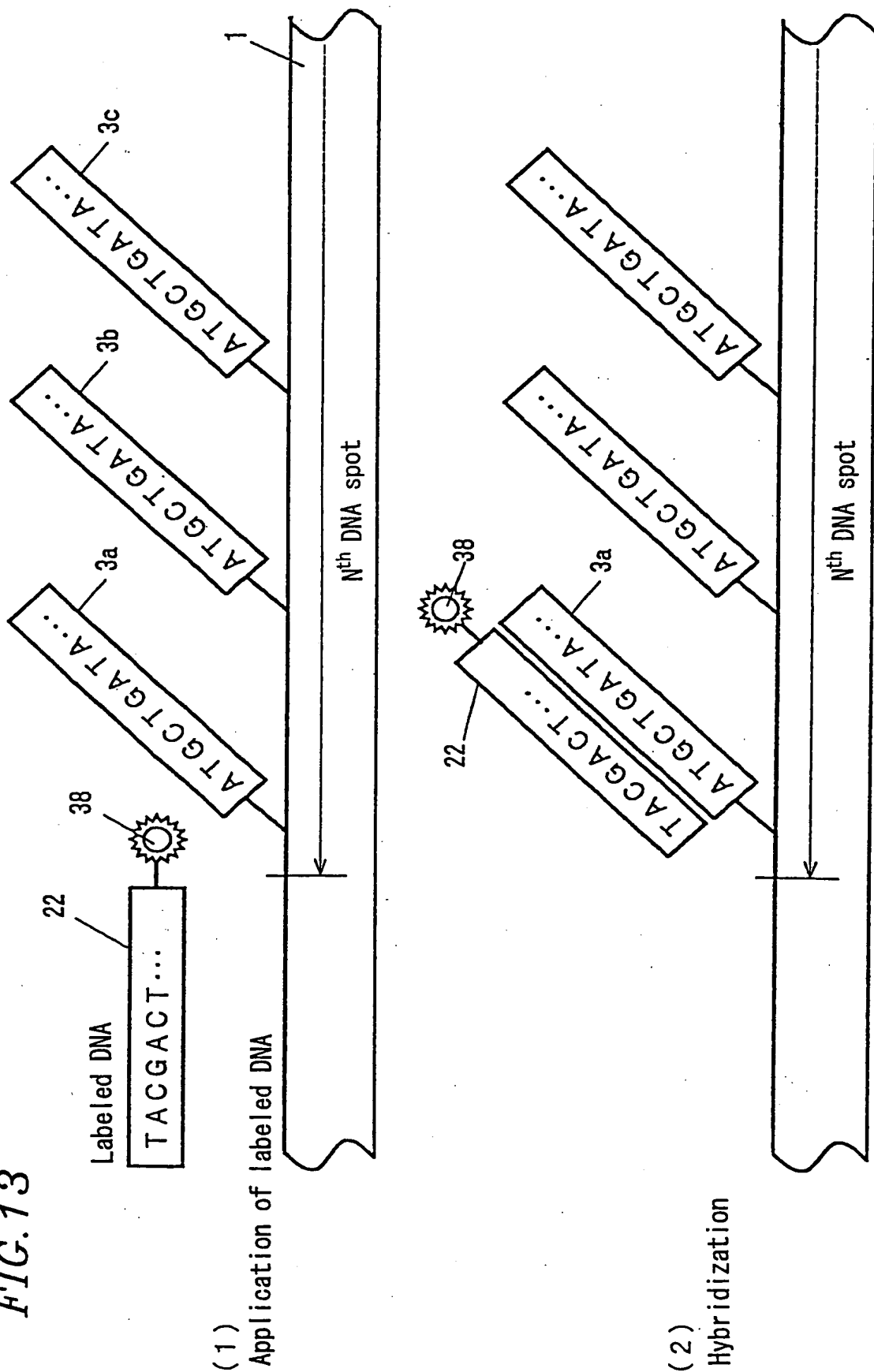


(2)
DNA substrate



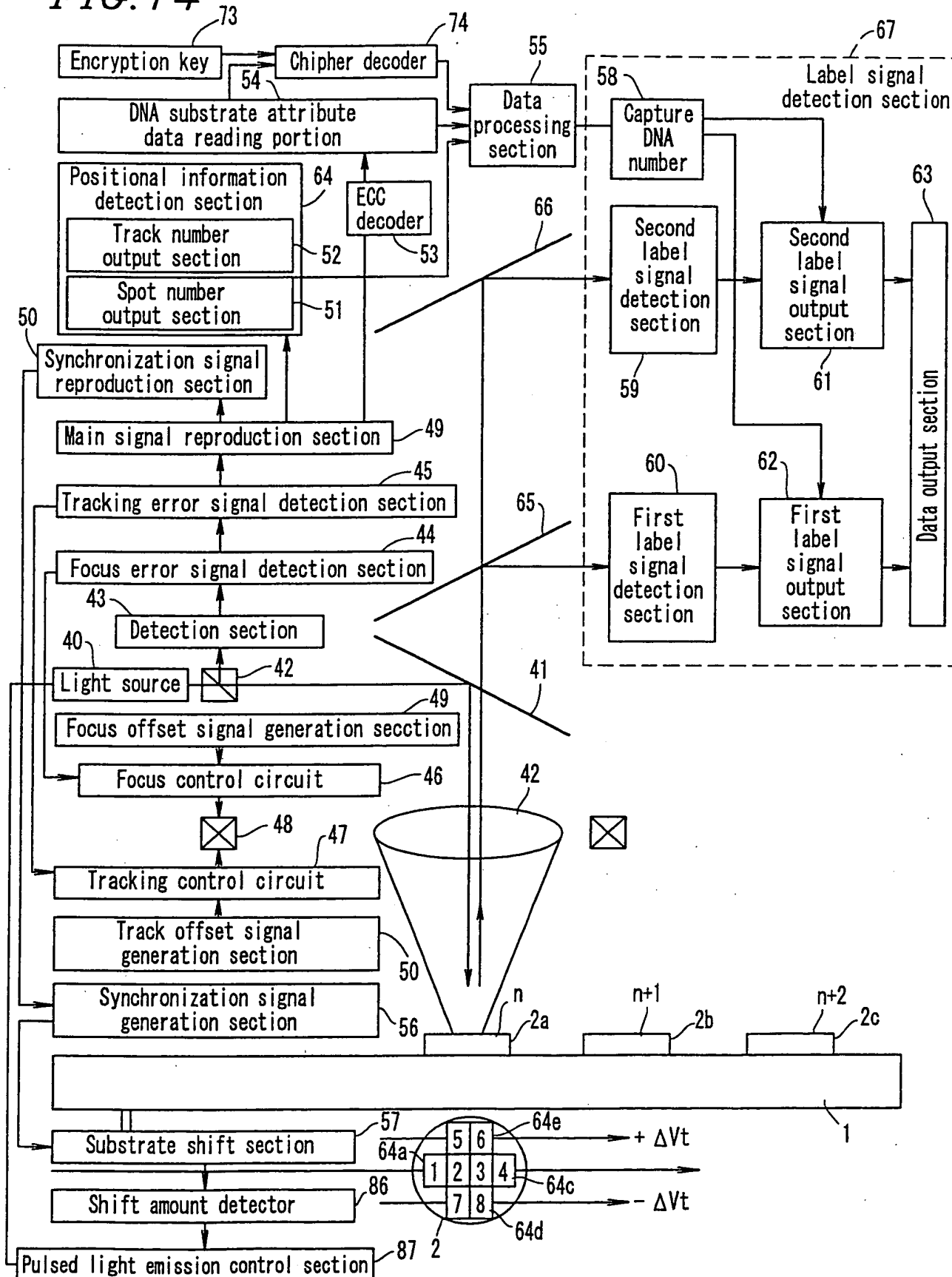
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FIG. 13



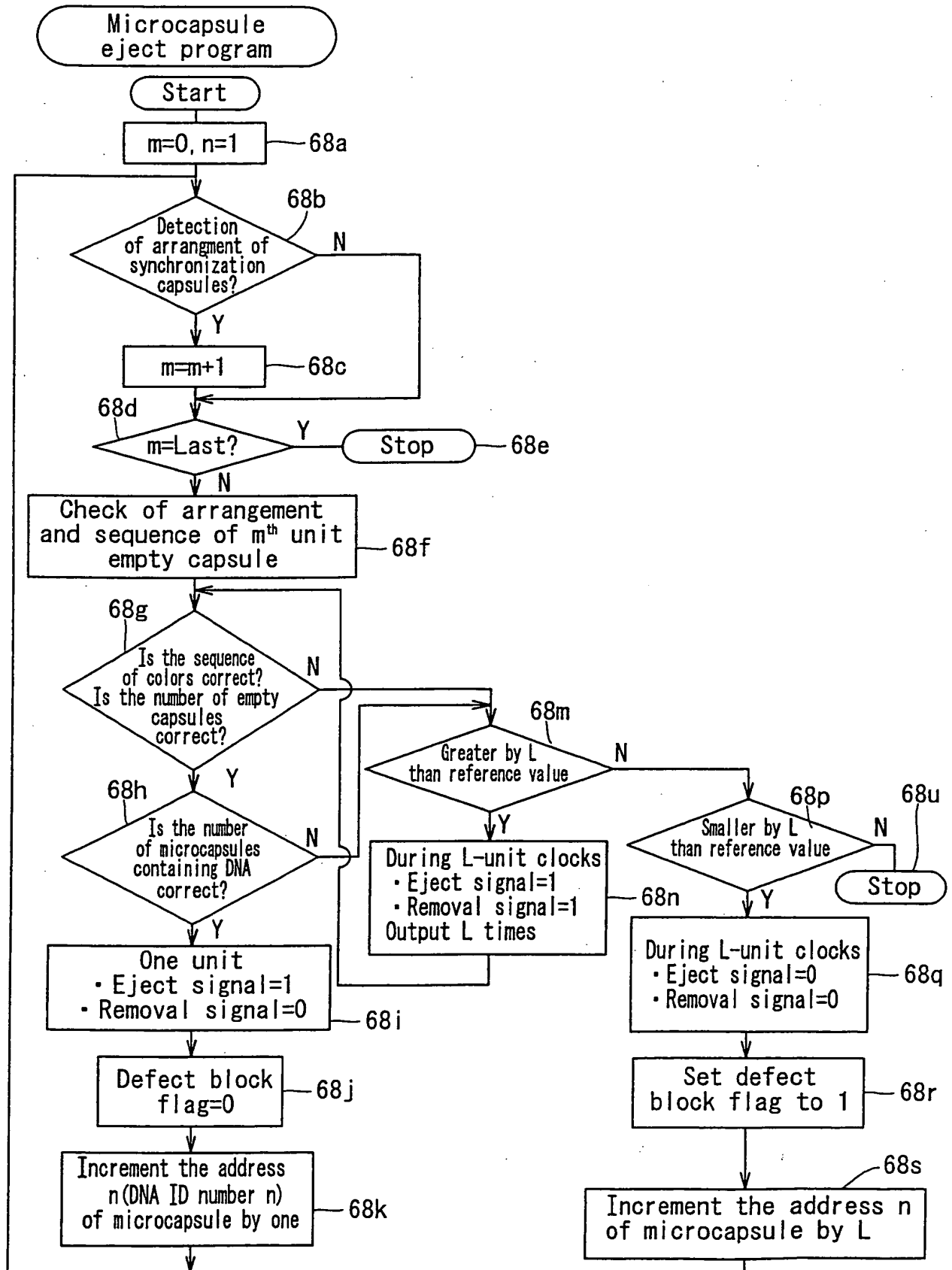
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FIG. 14



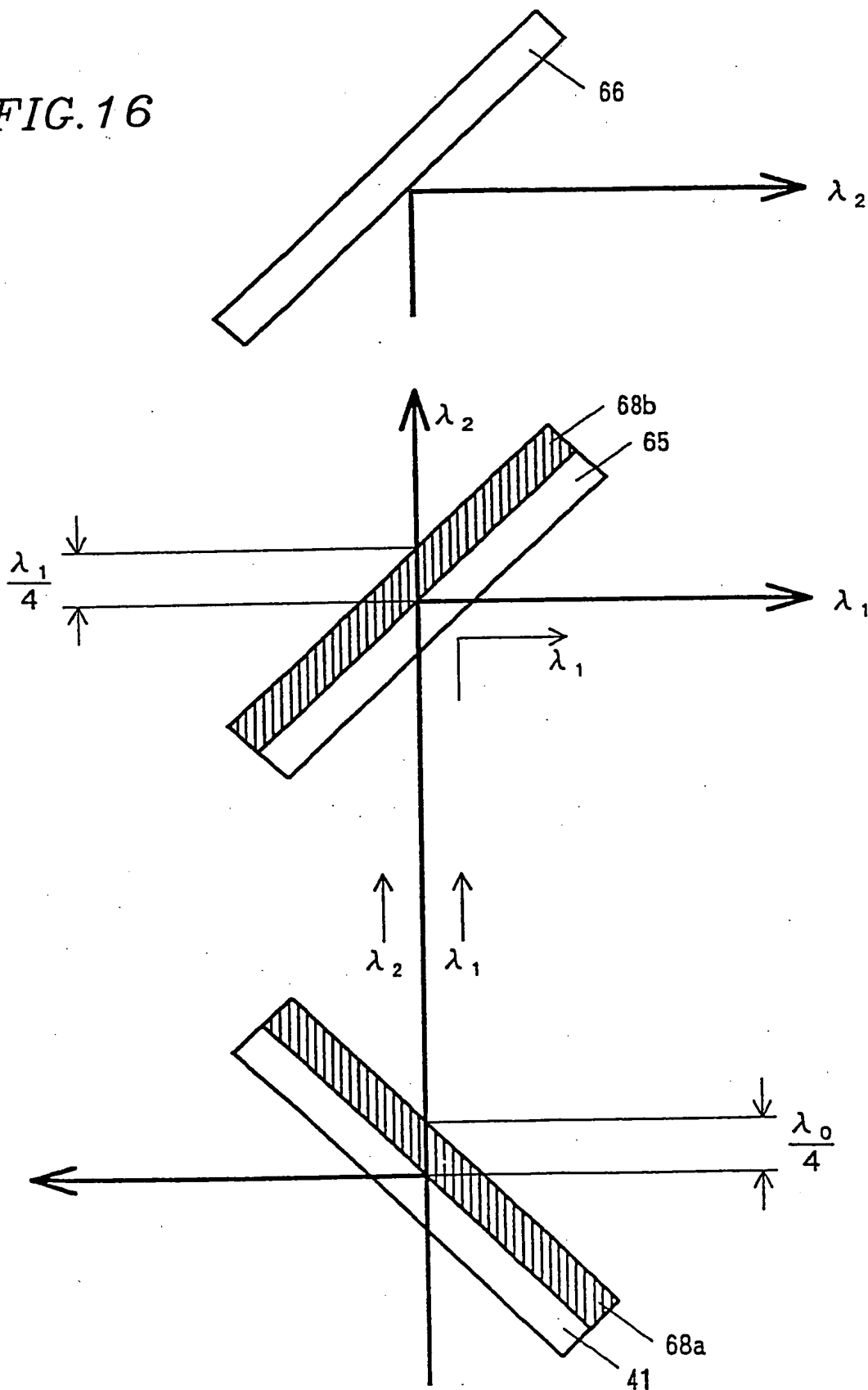
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FIG. 15



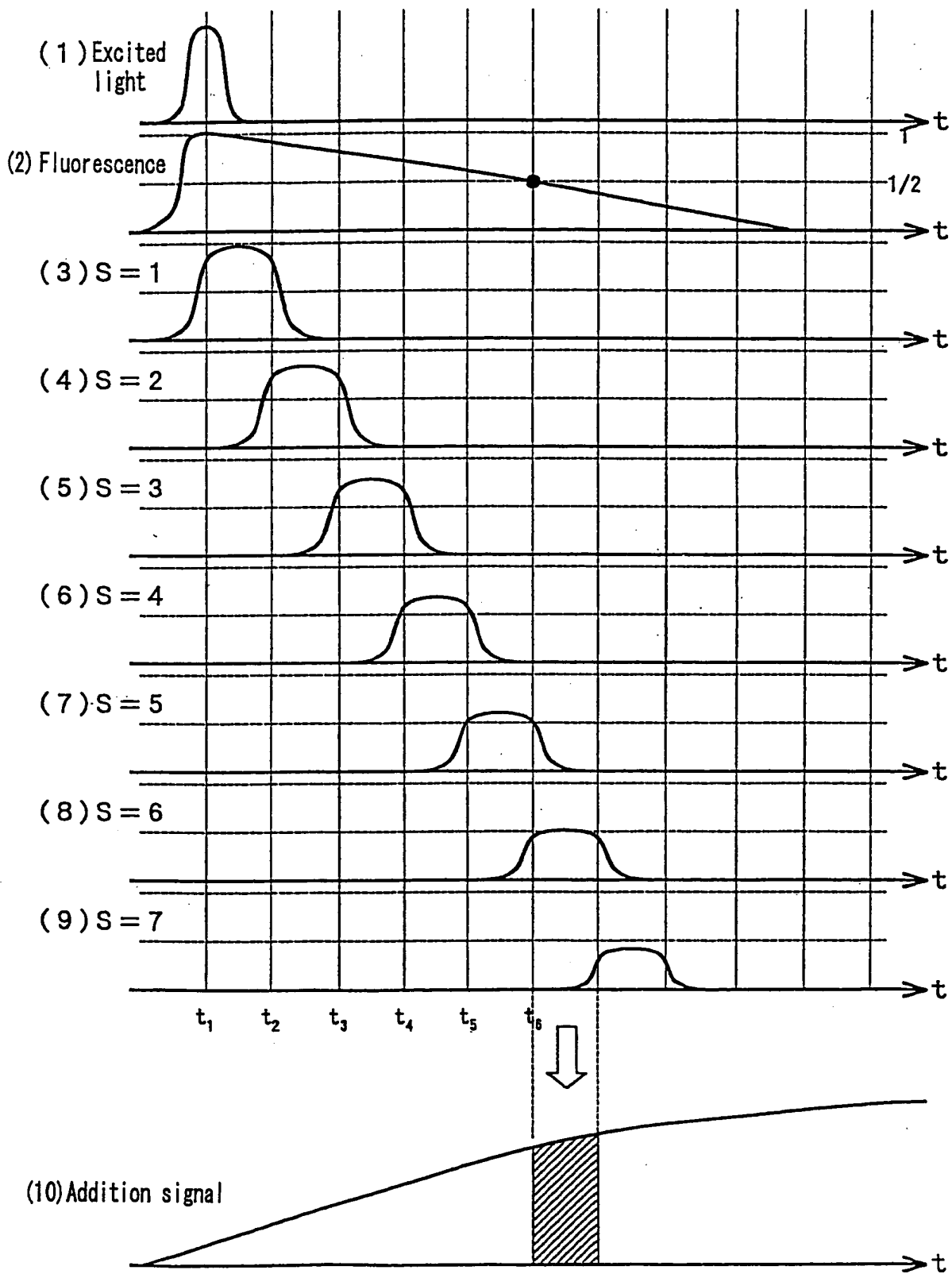
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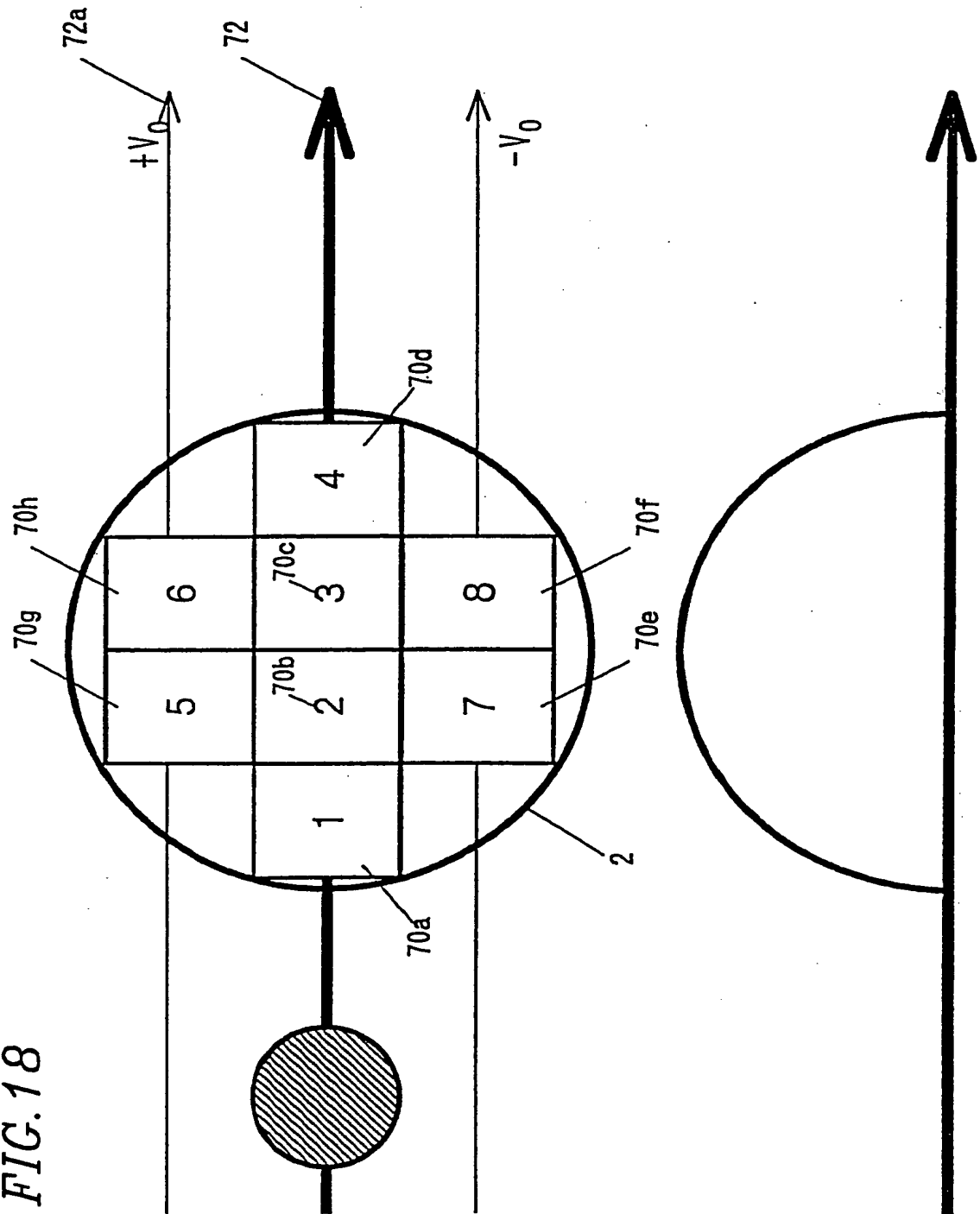
FIG. 16



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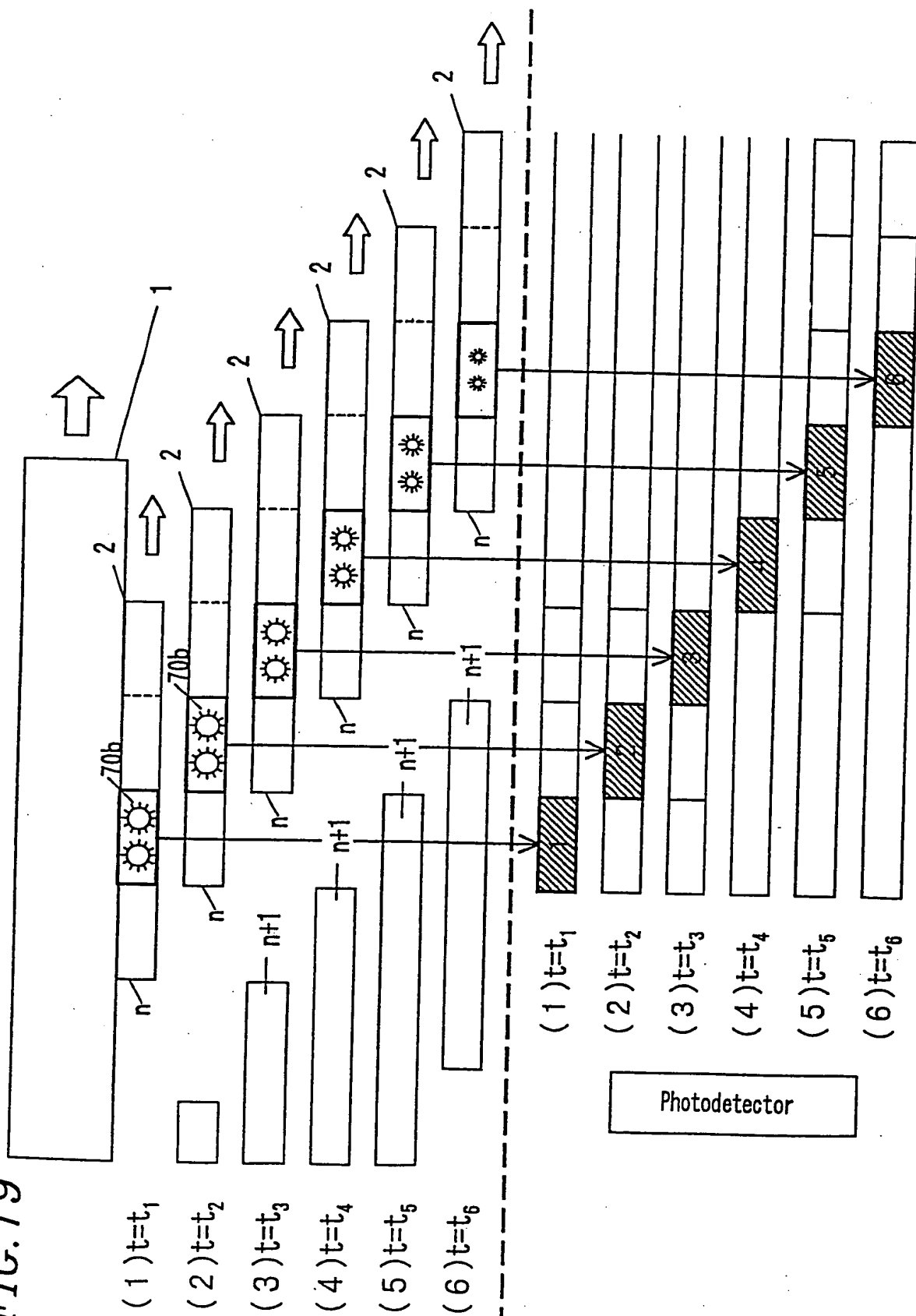
FIG. 17





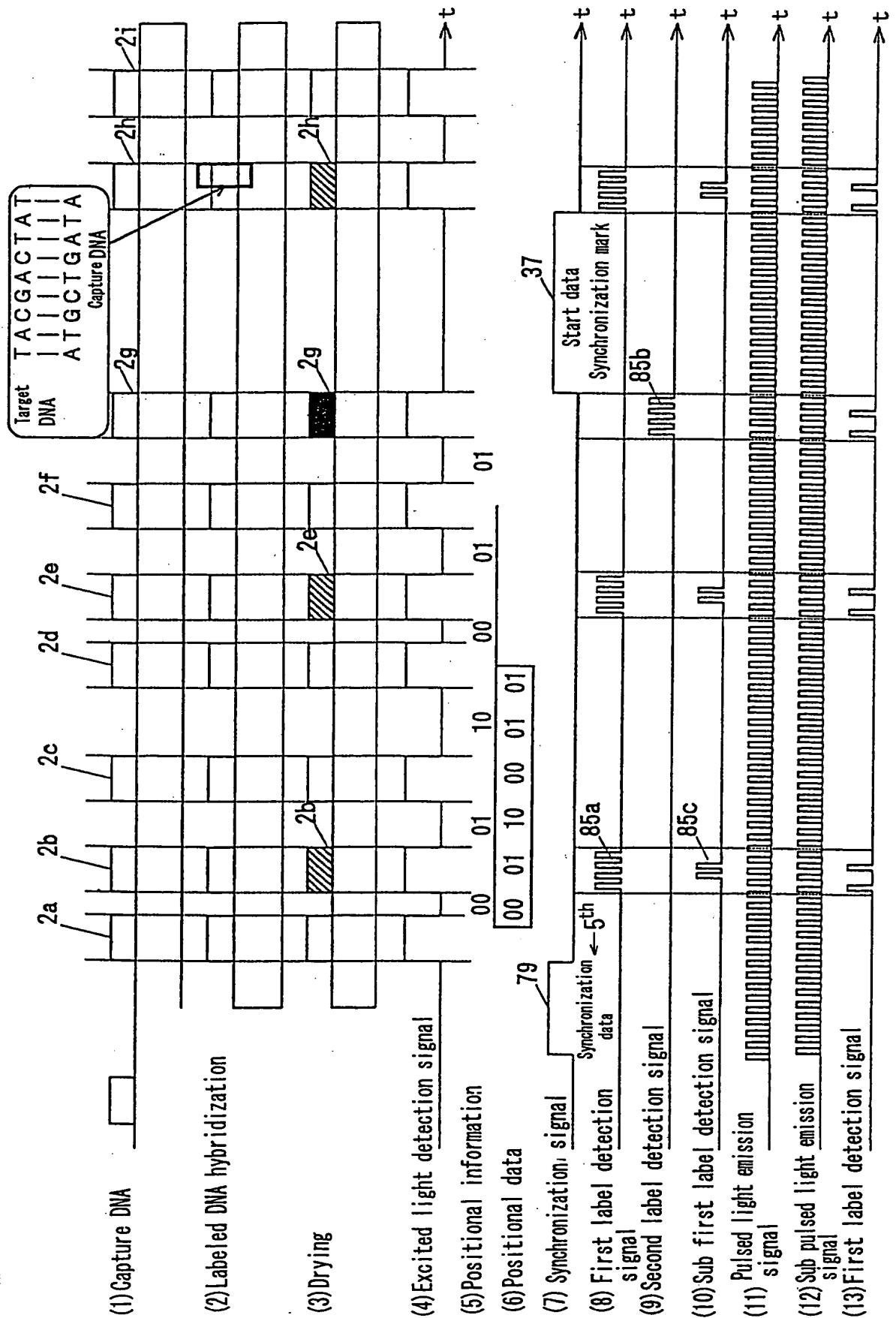
1954

FIG. 19

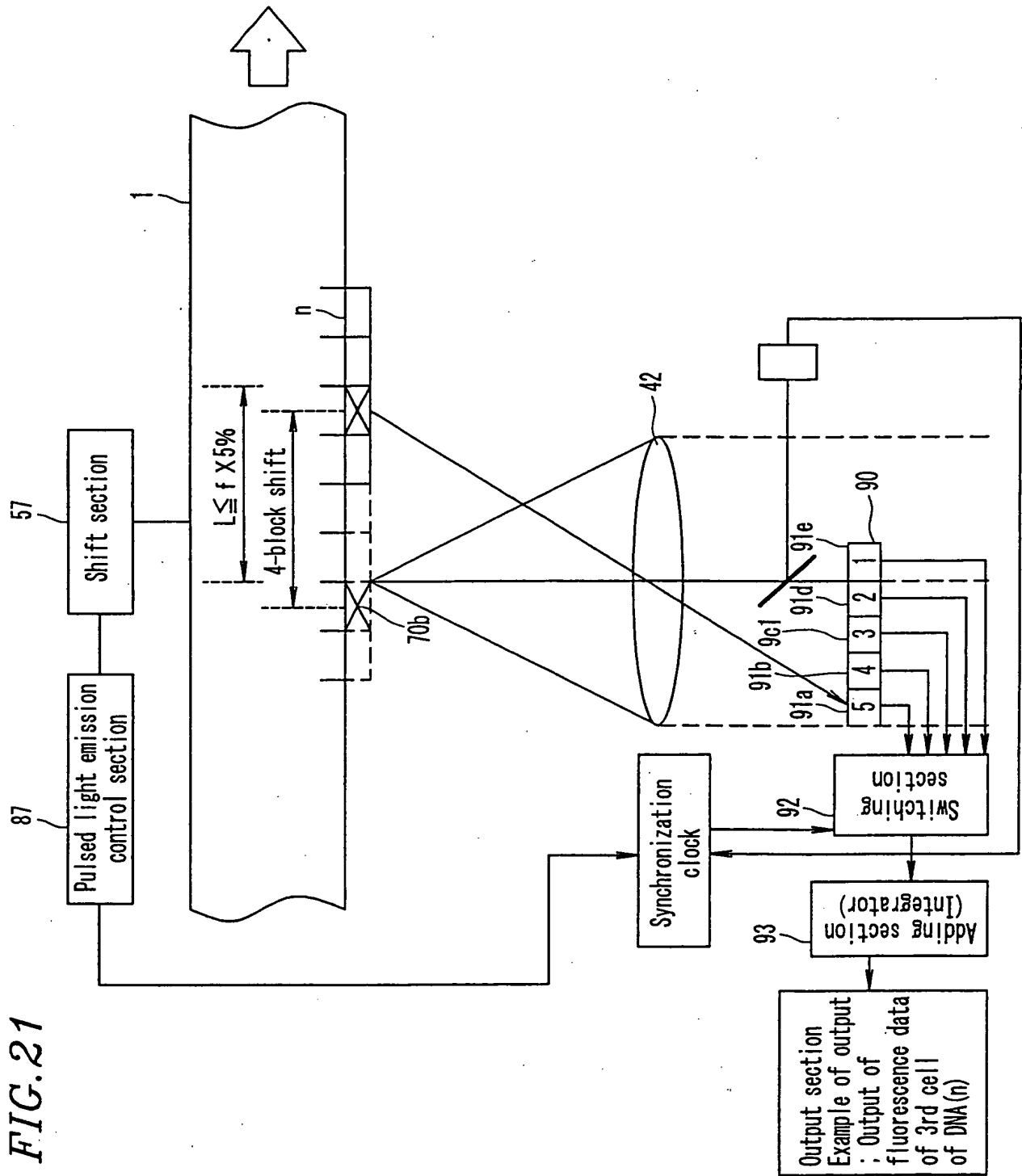


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FIG. 20



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FIG.22

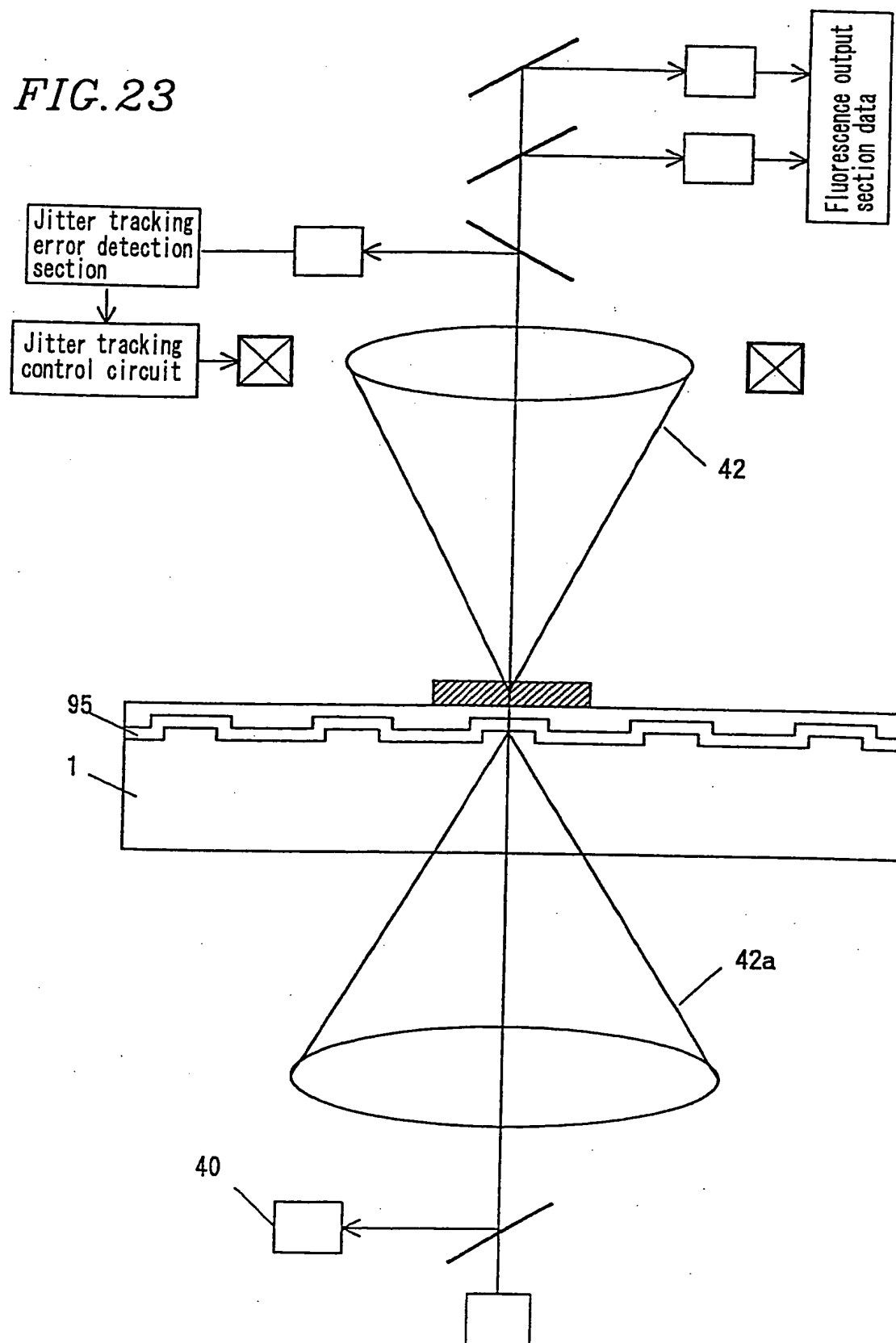
DNA number, and first and second label detection signals

DNA number	Division number	First label detection signal	Second label detection signal
n+1	1	2	0
	2	5	0
	3	5	1
	4	2	0
	5	5	0
	6	5	0
	7	3	0
	8	3	0
n+2	1	0	0
	2	0	0
	3	0	0
n+6	1	0	2
	2	0	5
	3	0	5
	4	0	2
	5	0	5
	6	0	5
	7	0	5
	8	0	5

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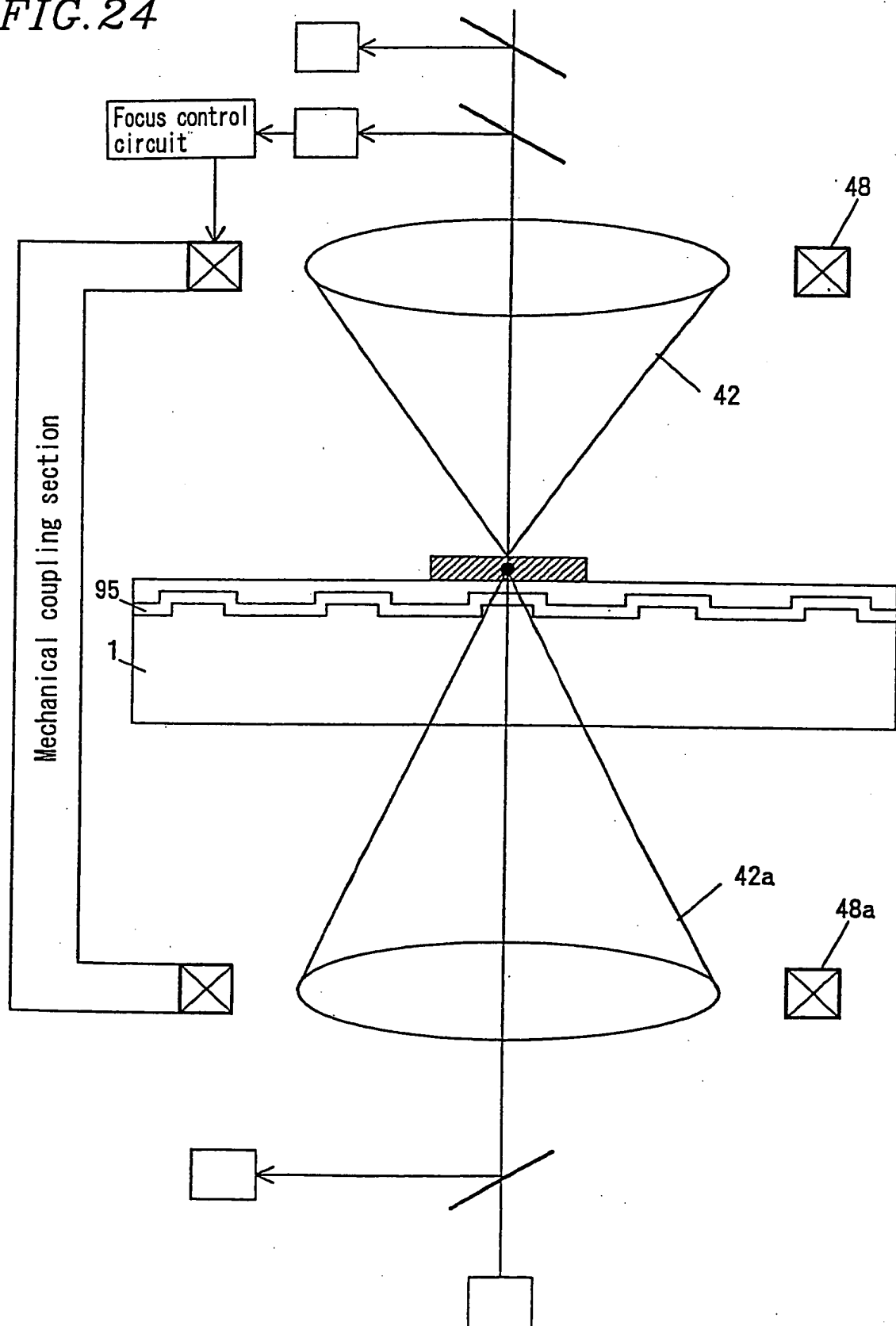
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FIG. 23

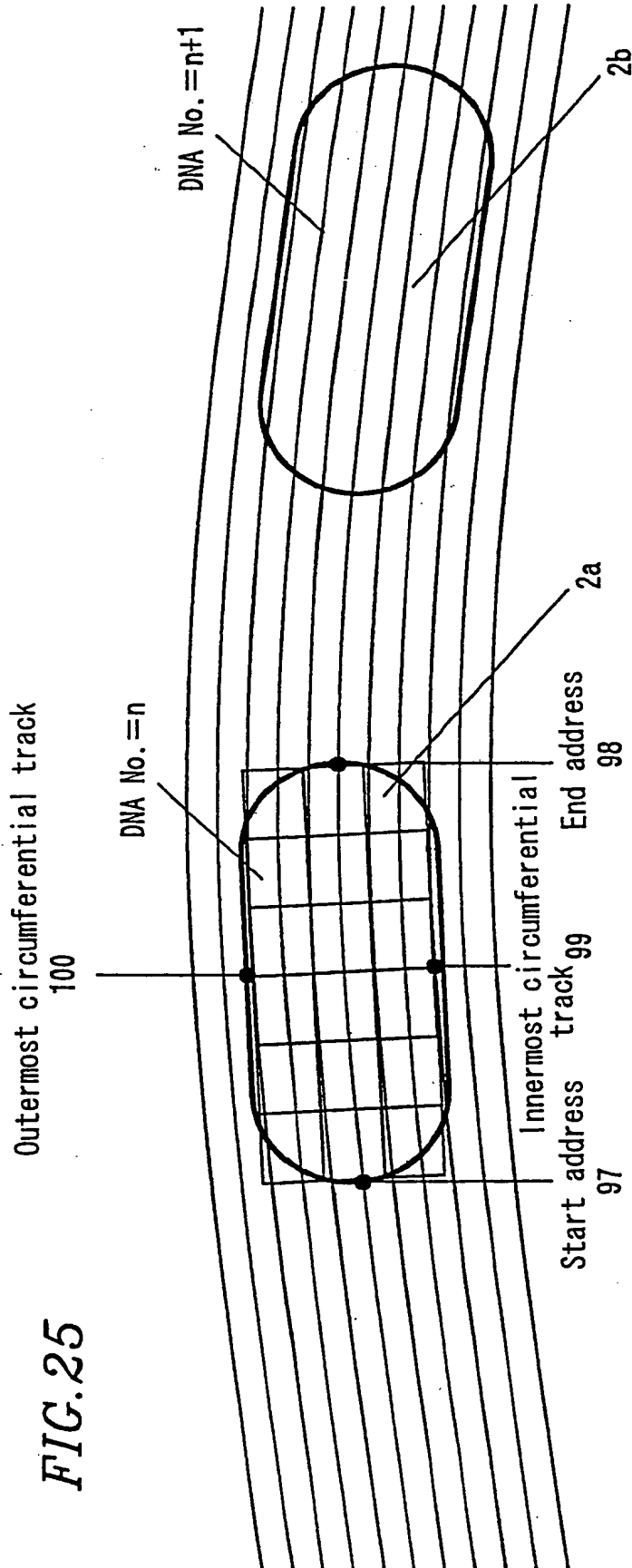


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FIG. 24



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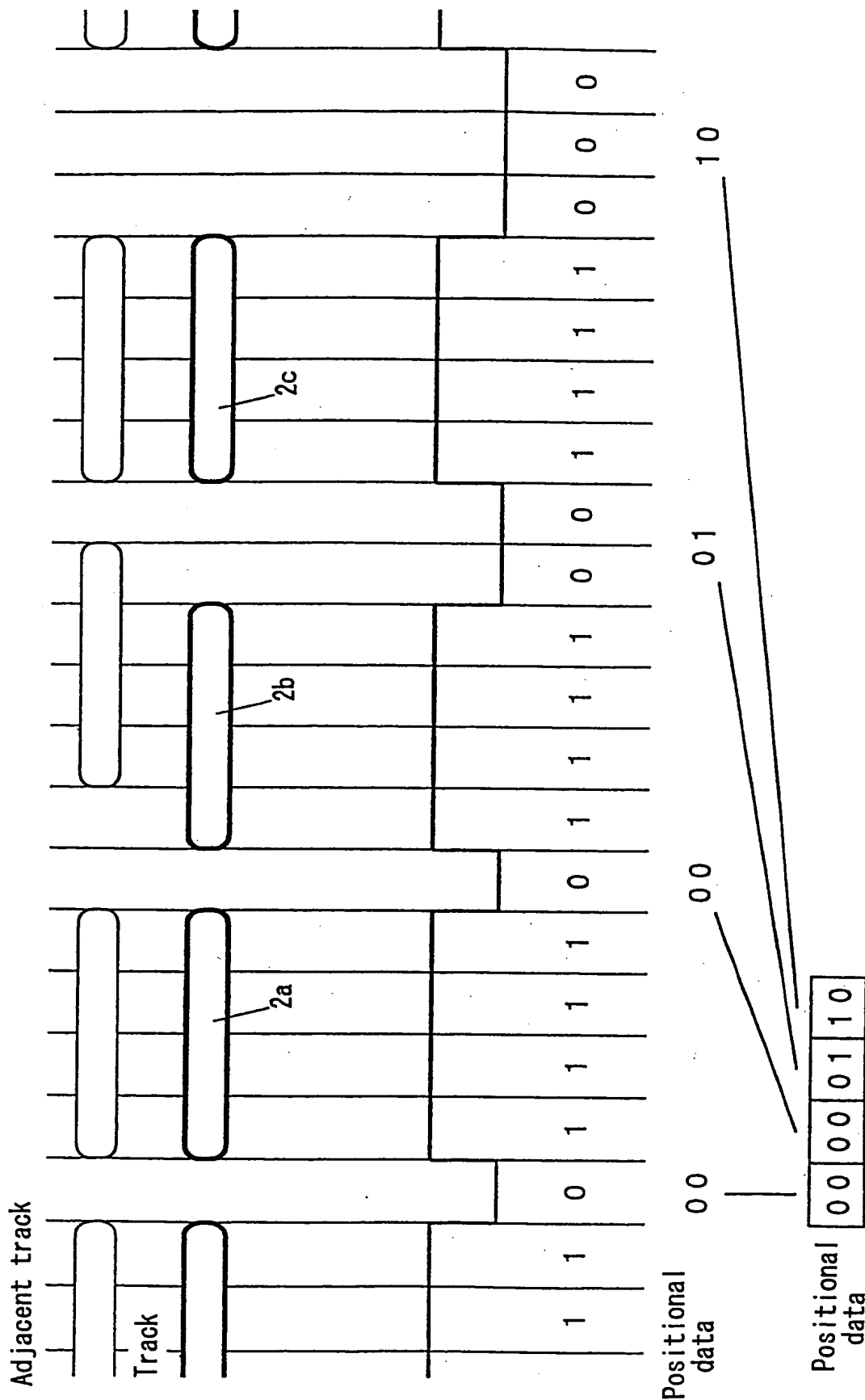


DNA No.	Start address	End address	Innermost circumferential track	Outmost circumferential track
n	1 A 2 6	1 B 0 8	5 0 2 6	5 0 3 2
$n+1$				

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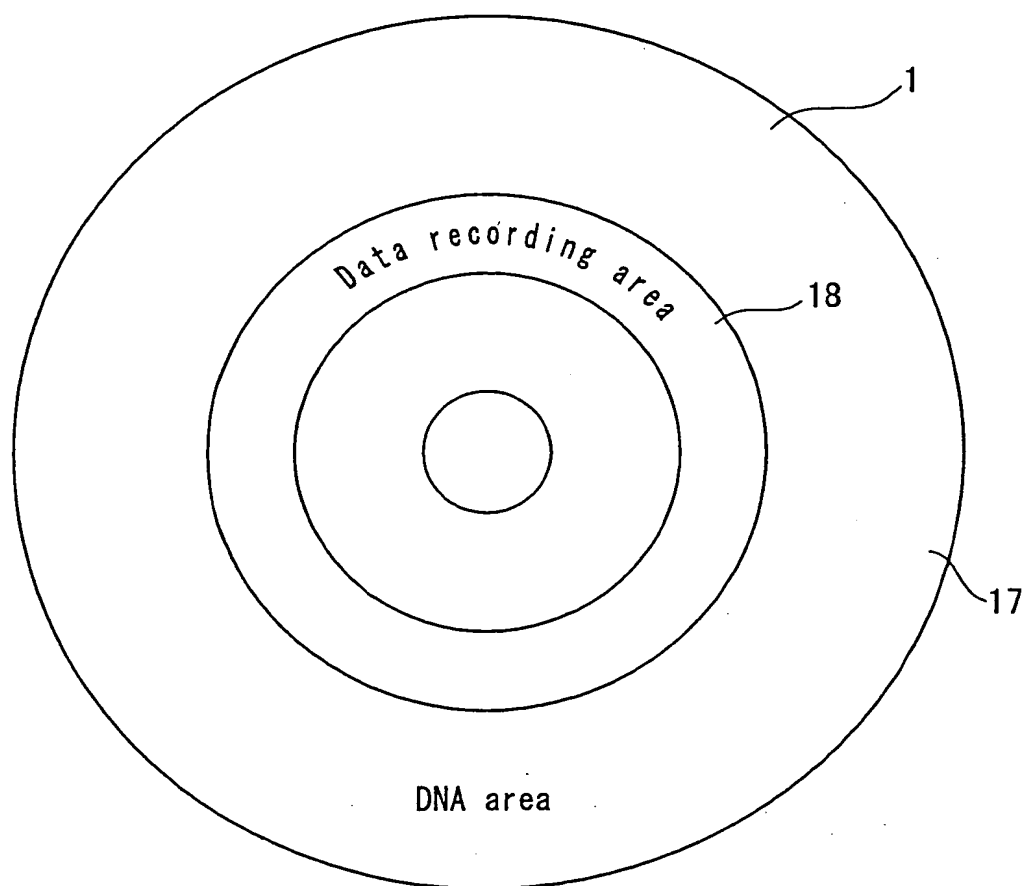
FIG. 26

Method for changing interval where length is constant



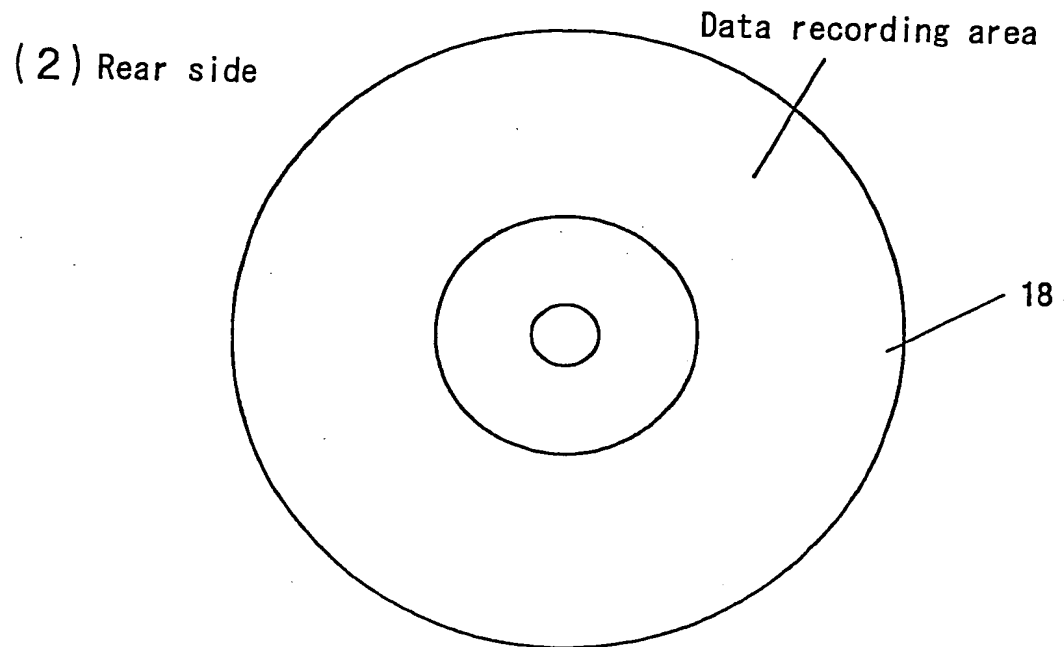
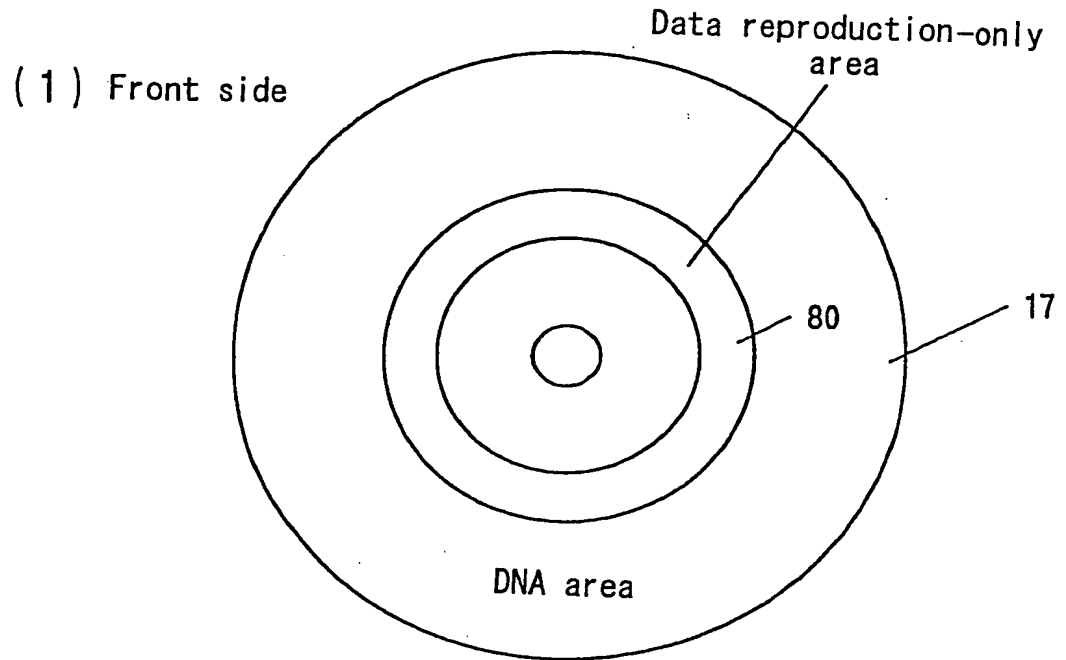
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FIG. 27



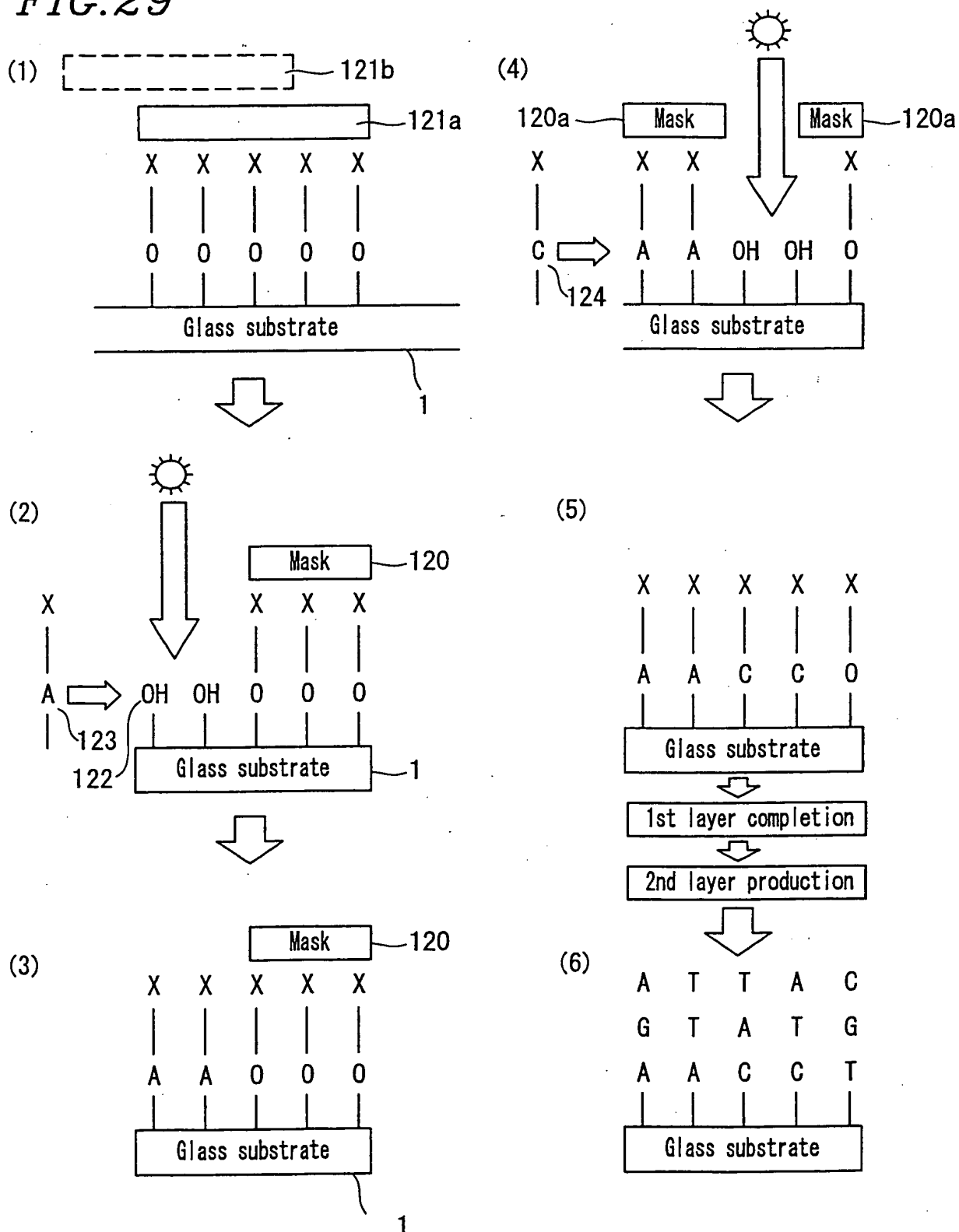
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FIG. 28

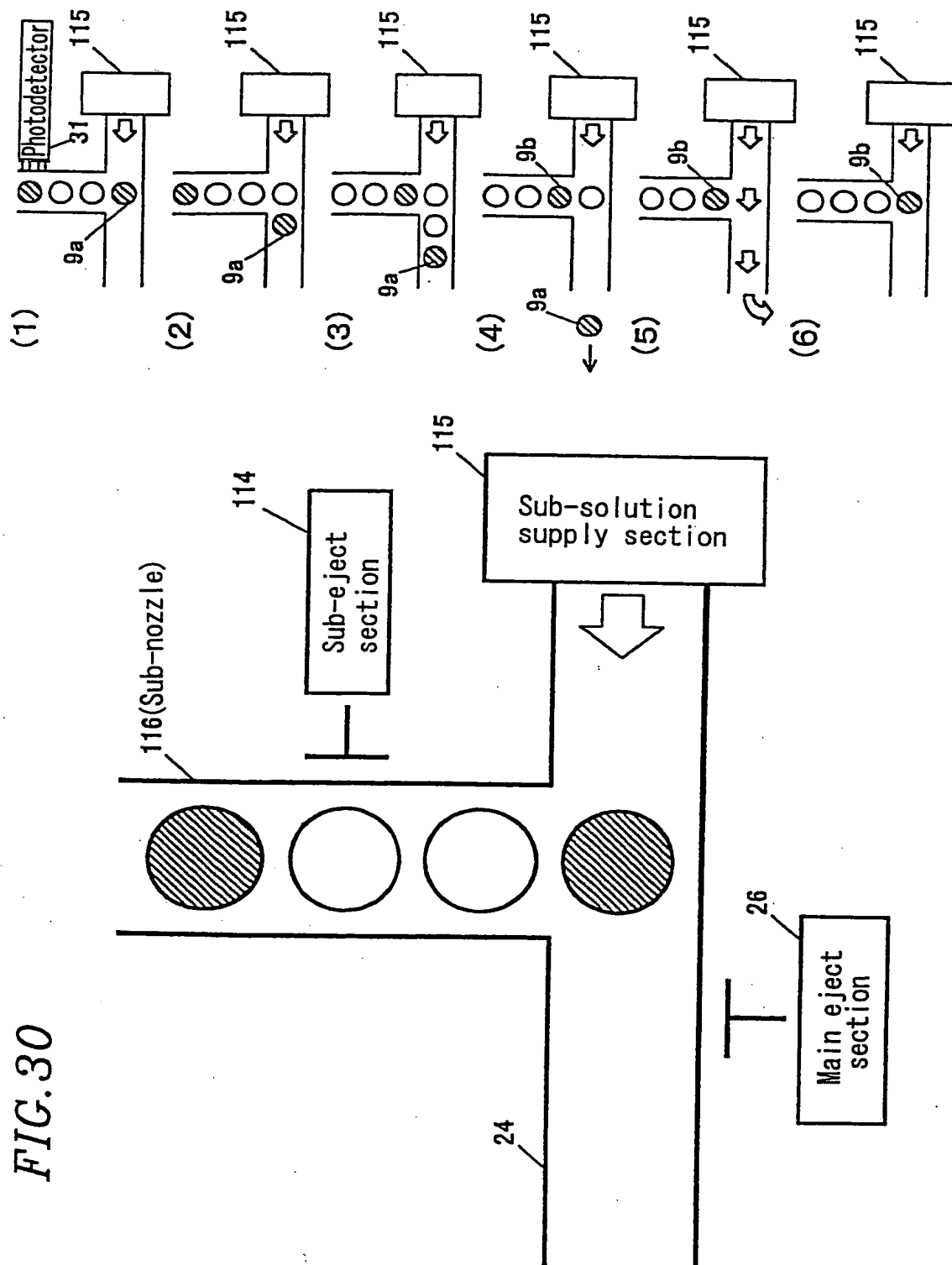


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FIG. 29

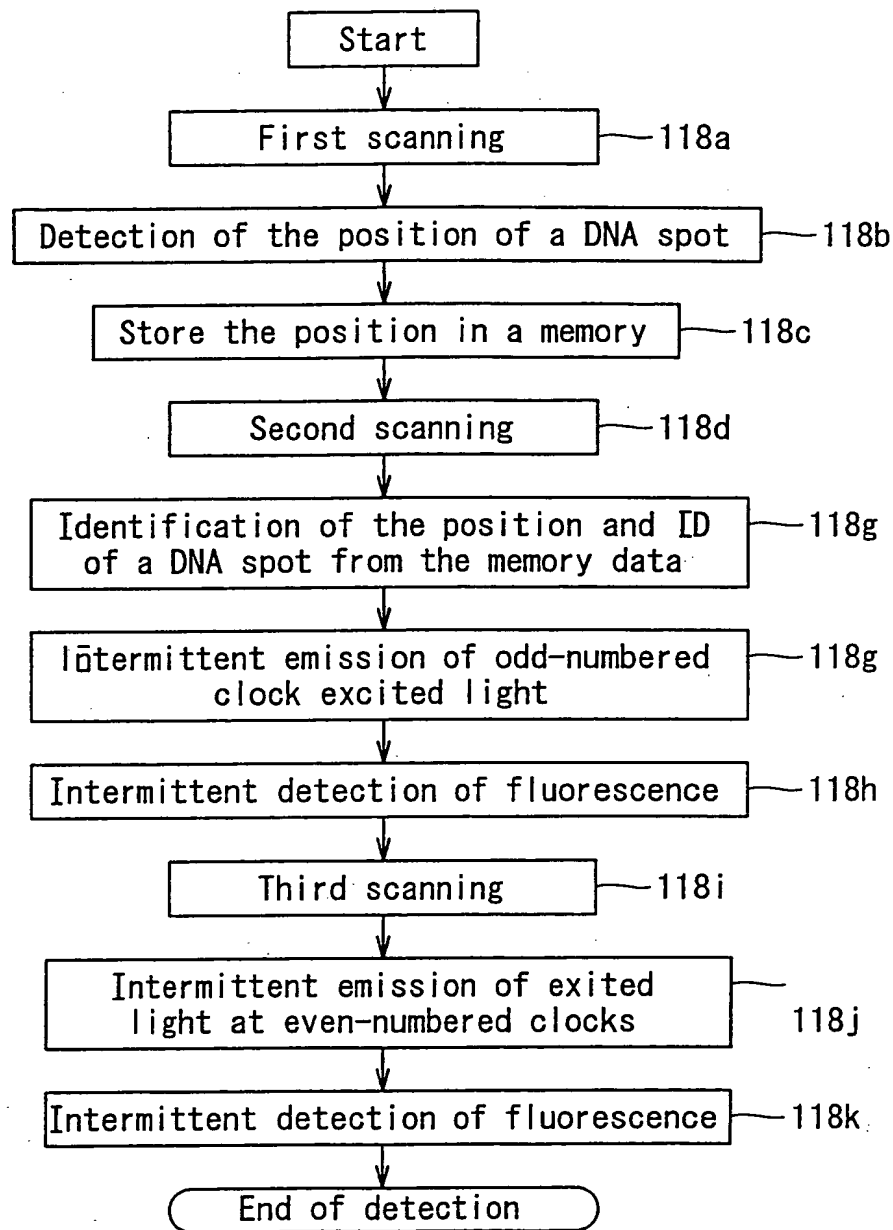


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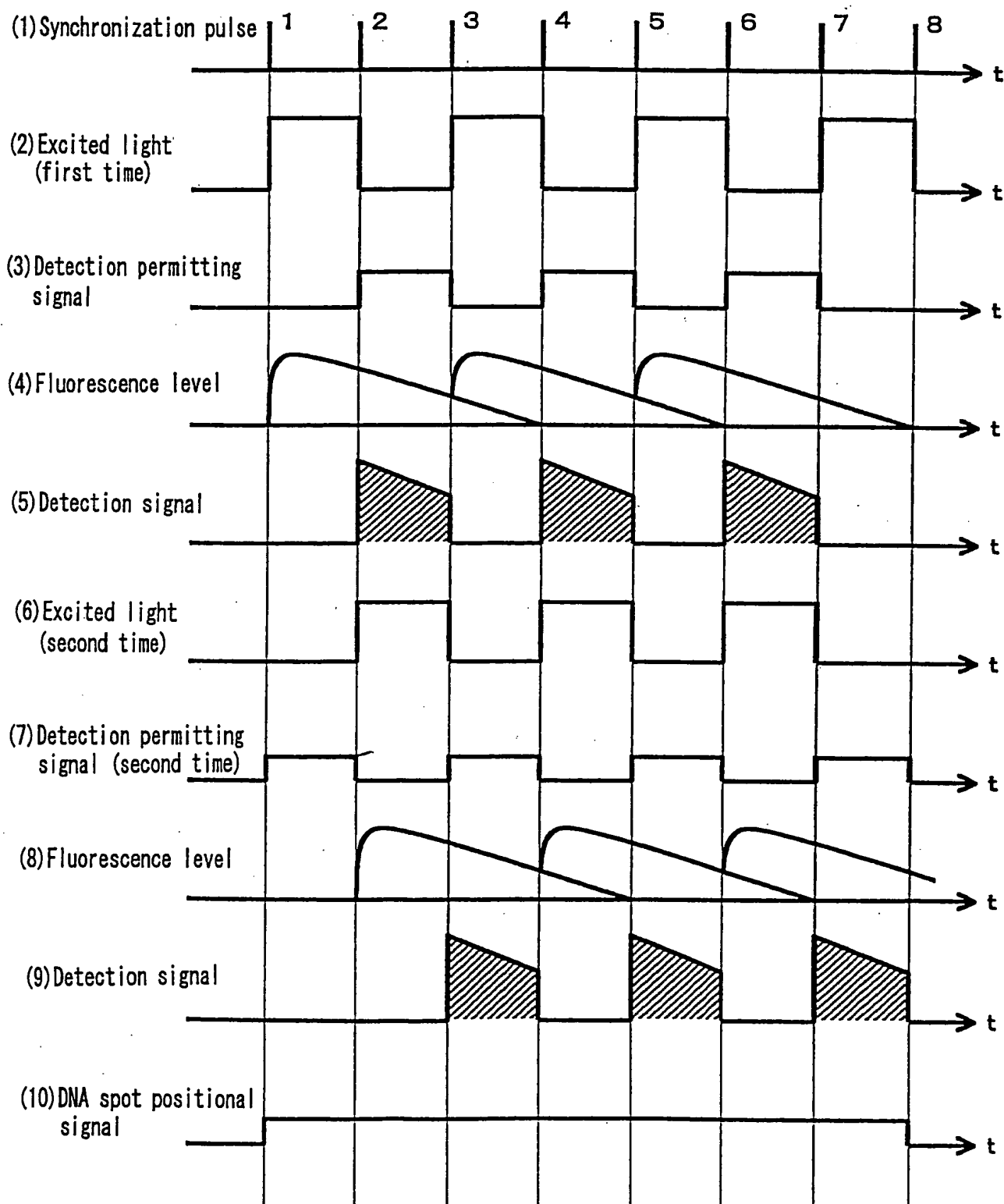
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FIG. 31

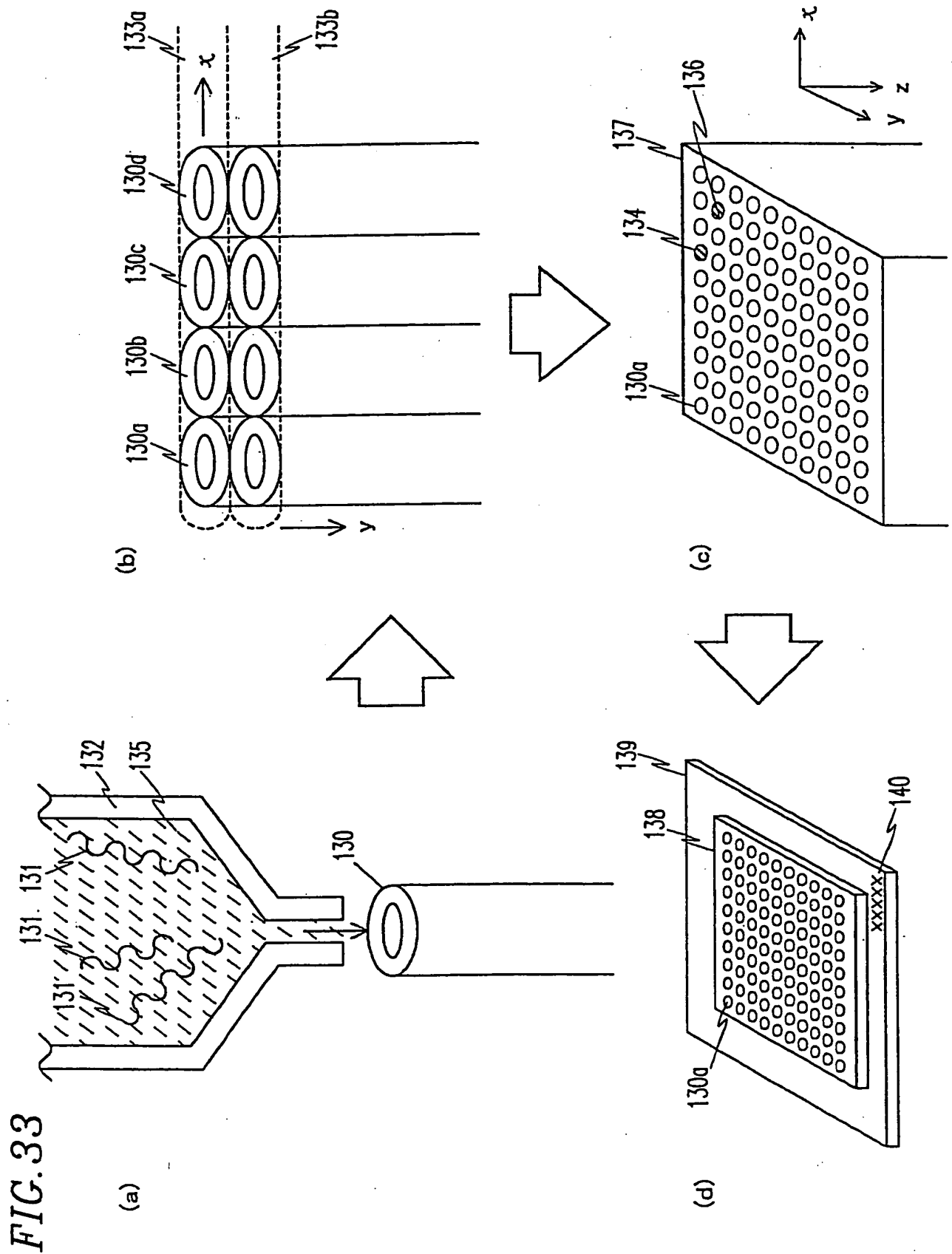


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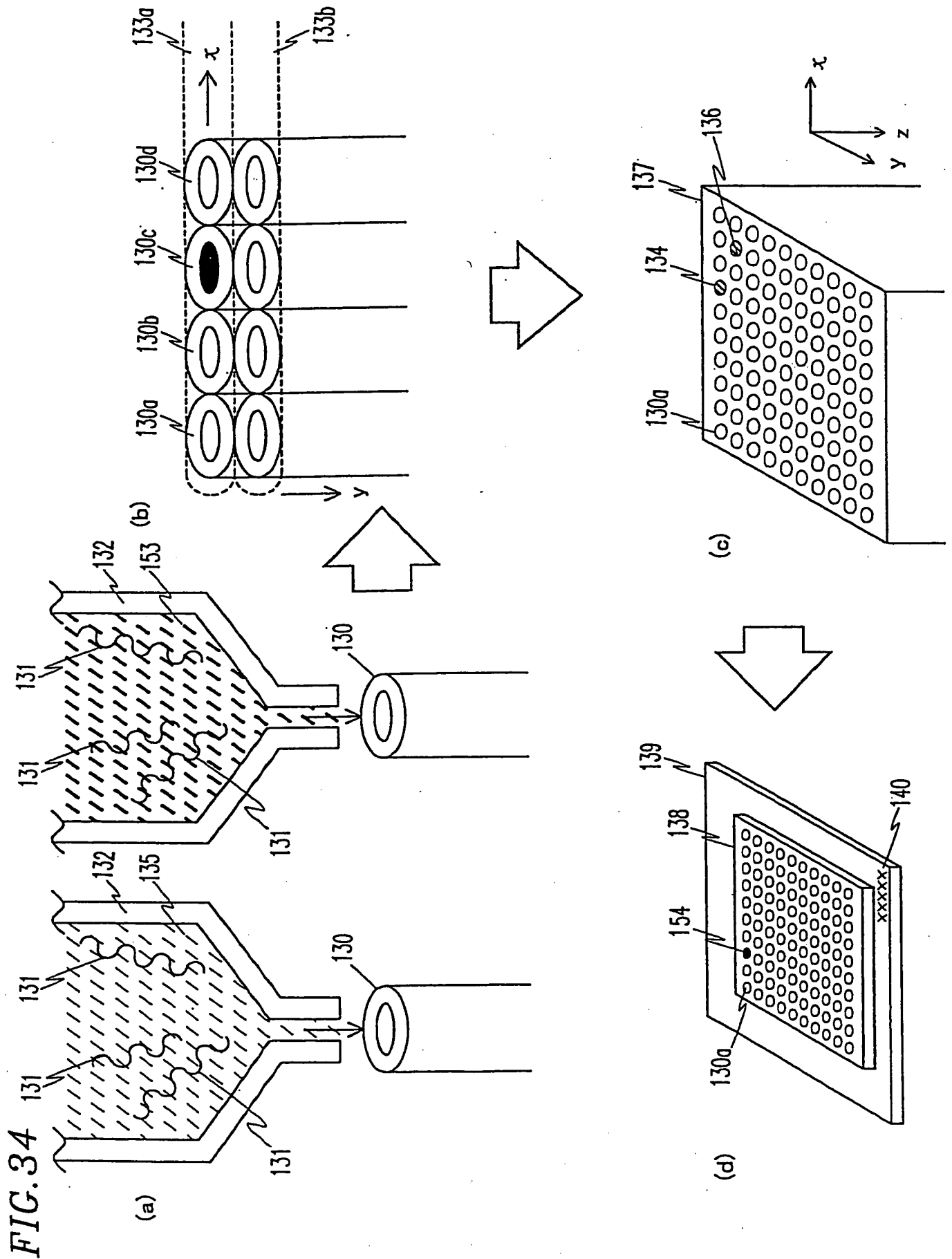
FIG. 32



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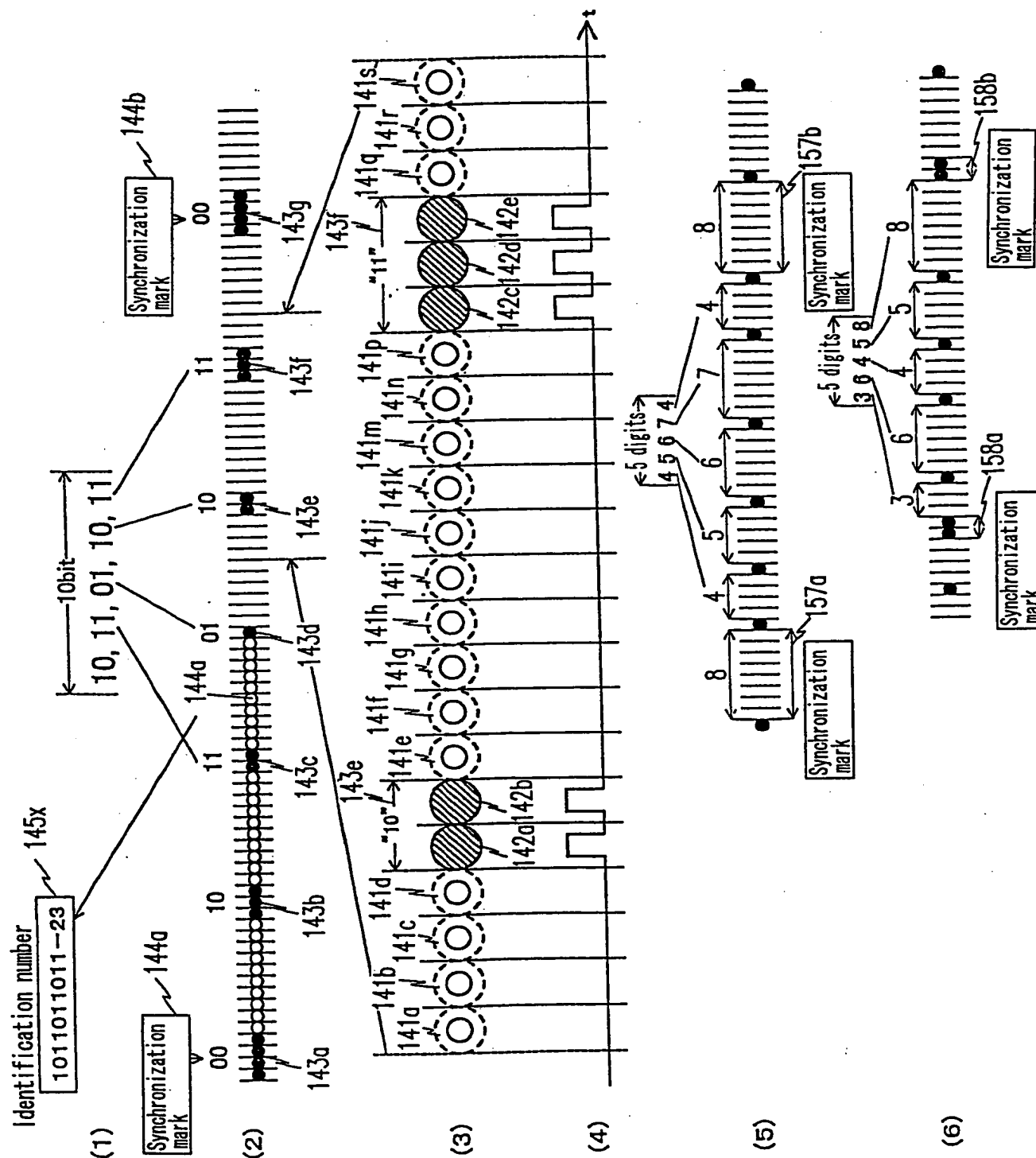


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FIG. 35



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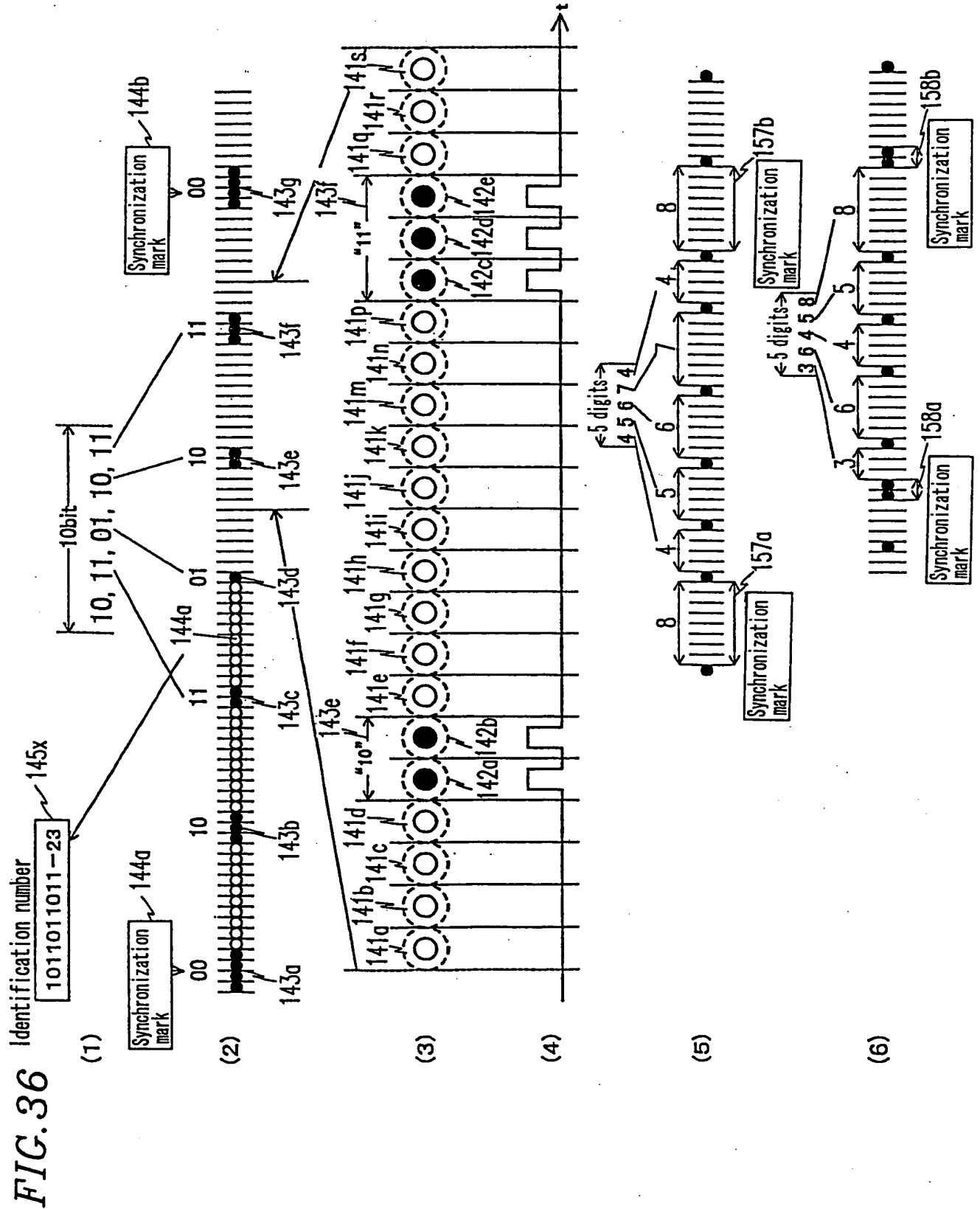
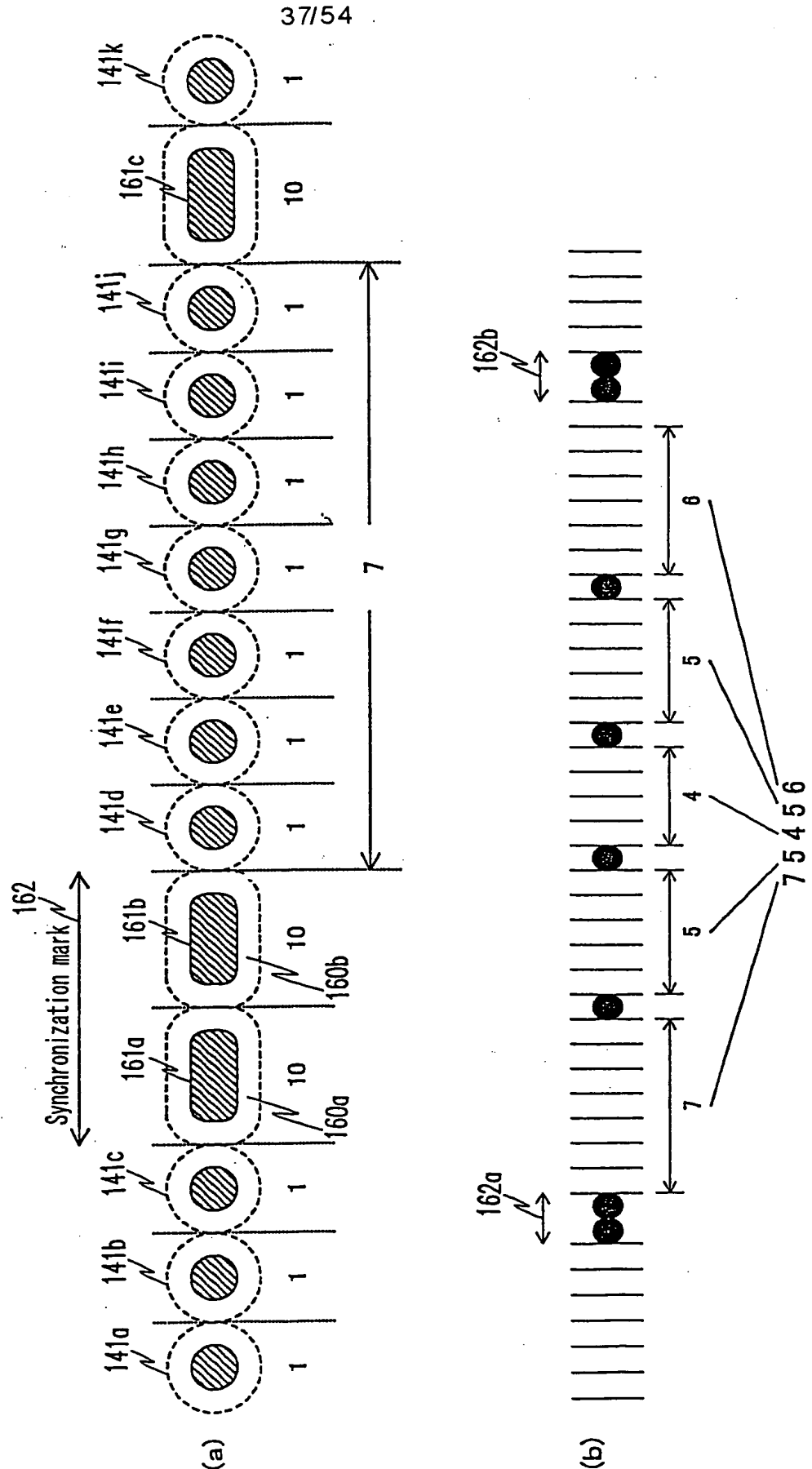
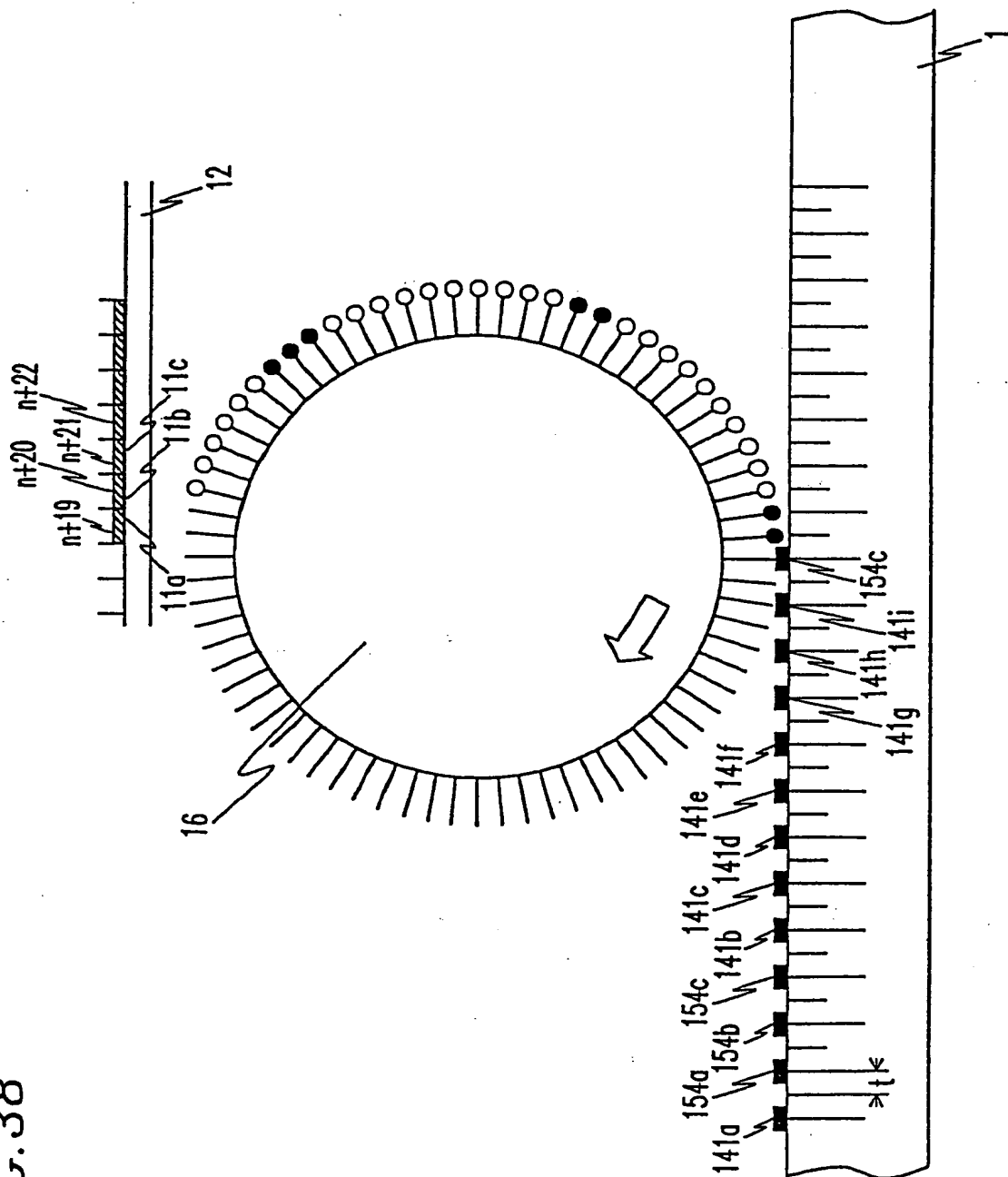


FIG. 37



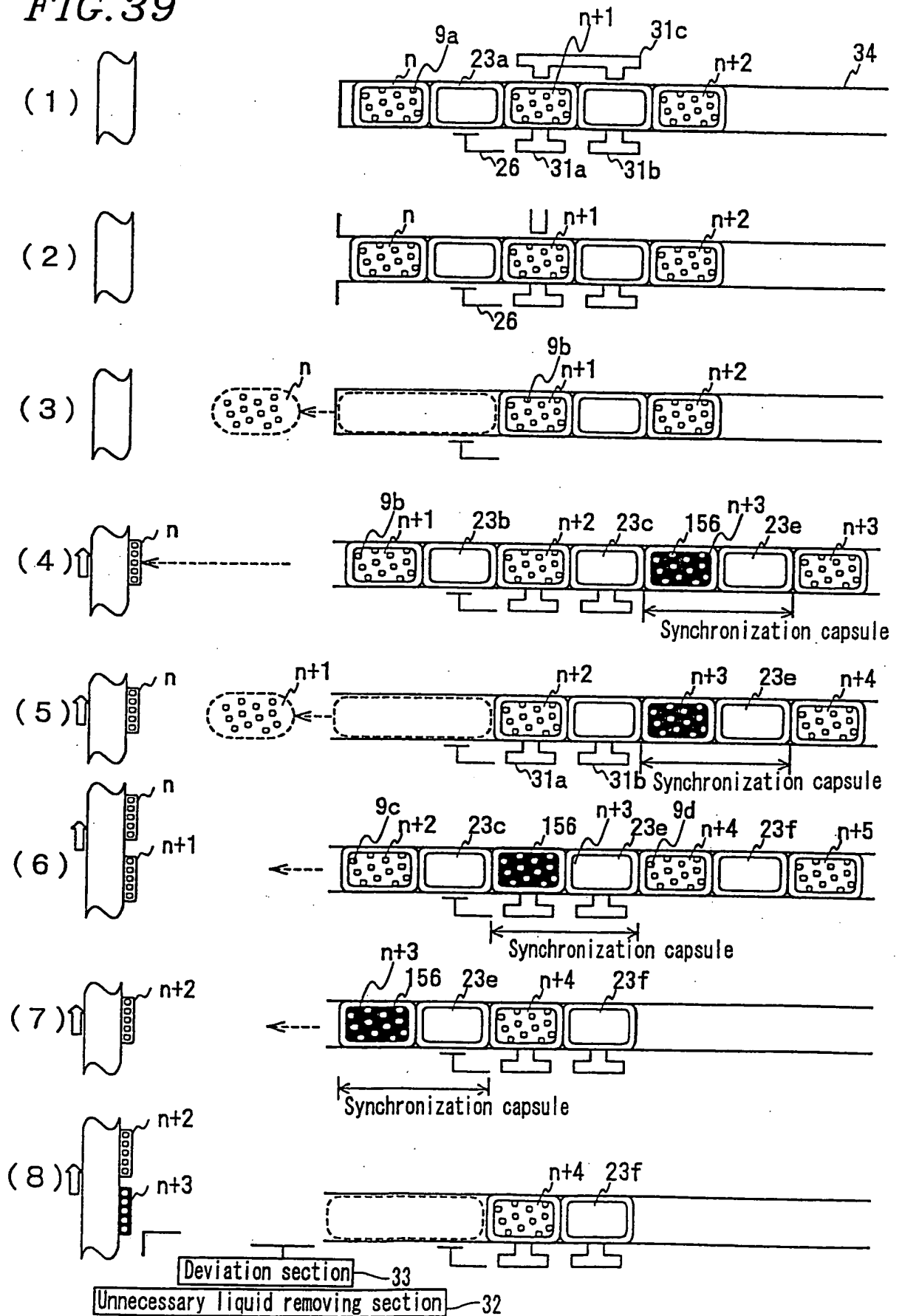
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FIG. 38



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FIG. 39



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Identification number		Probe attribute		
Address	Number	(DNA) sequence		
1011011011	23	ATGA.....		

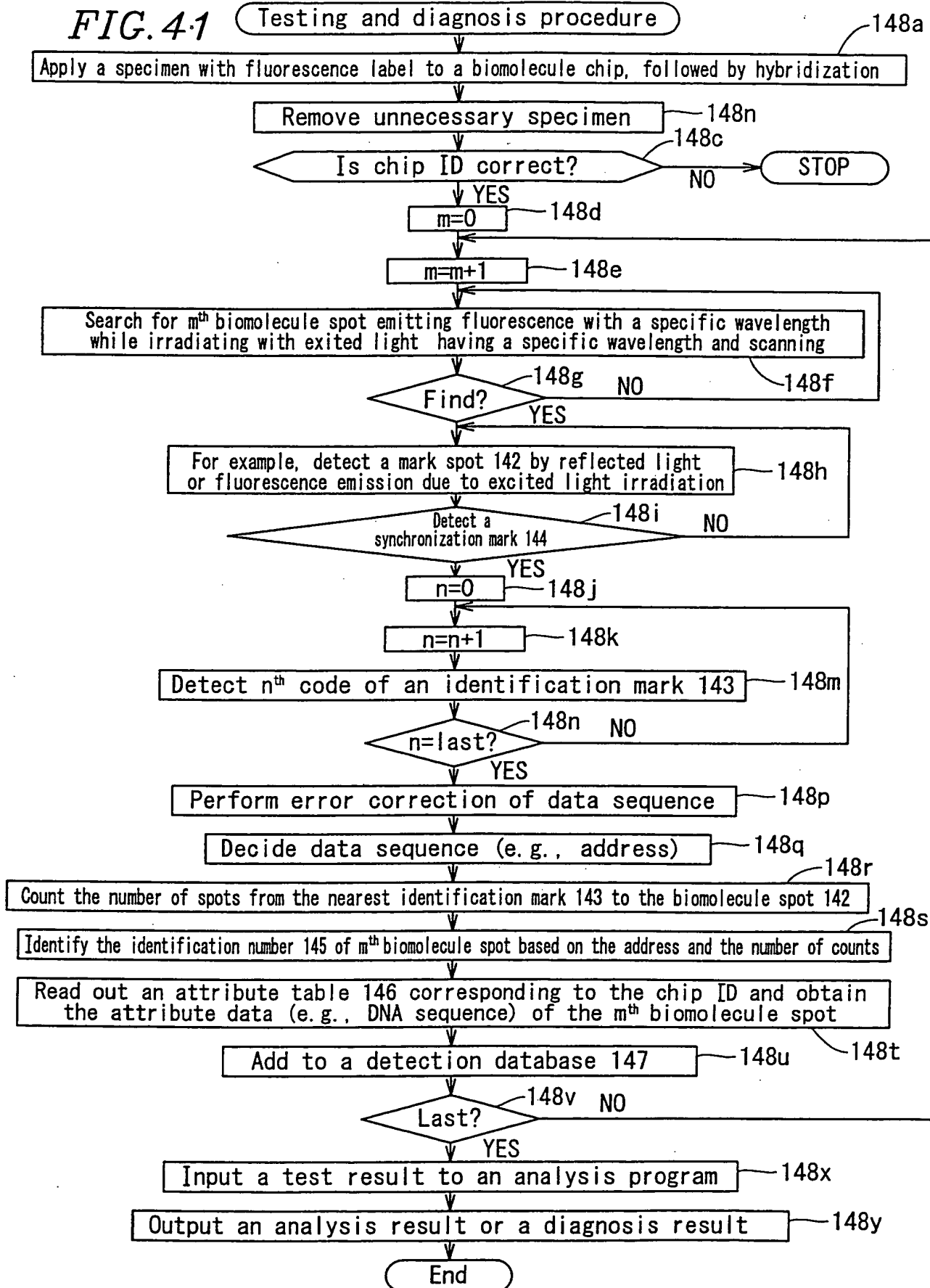
FIG. 40

145x

146

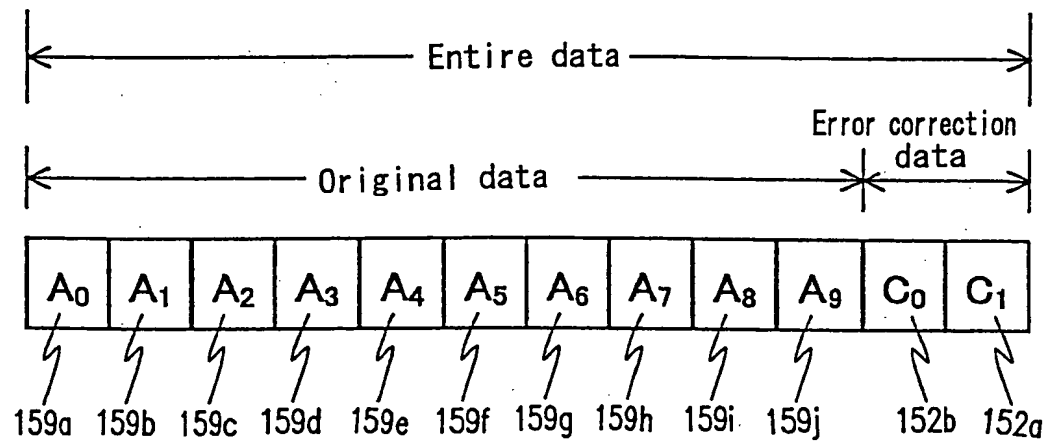
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FIG. 4-1 Testing and diagnosis procedure



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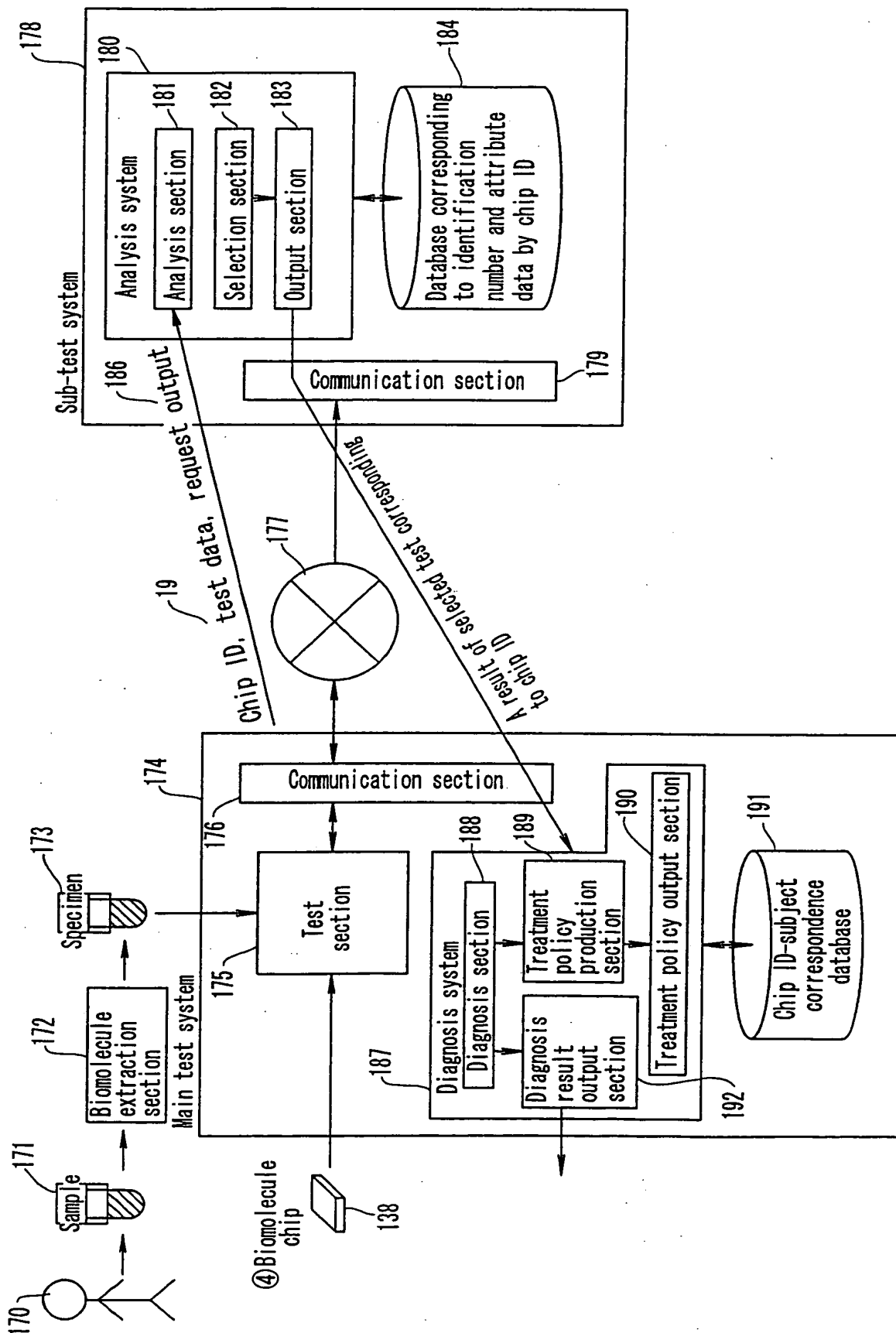
FIG. 42



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Network type test system

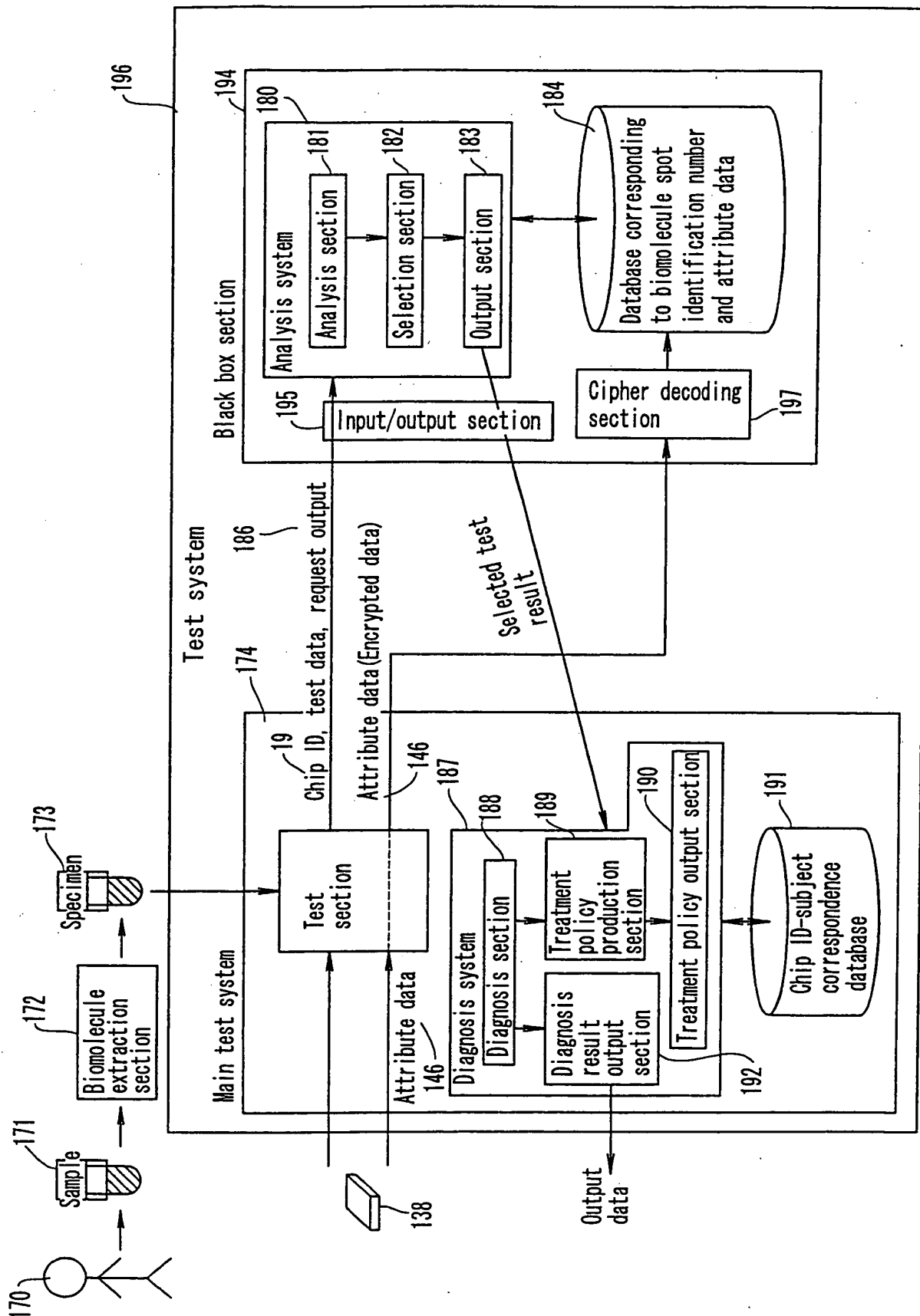
FIG. 43



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Stand-alone type test system

FIG. 44

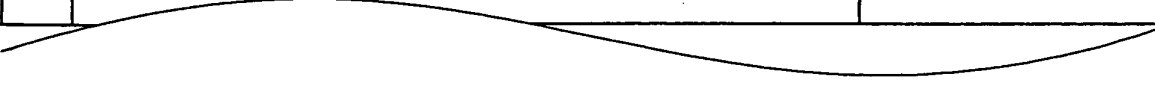


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FIG45

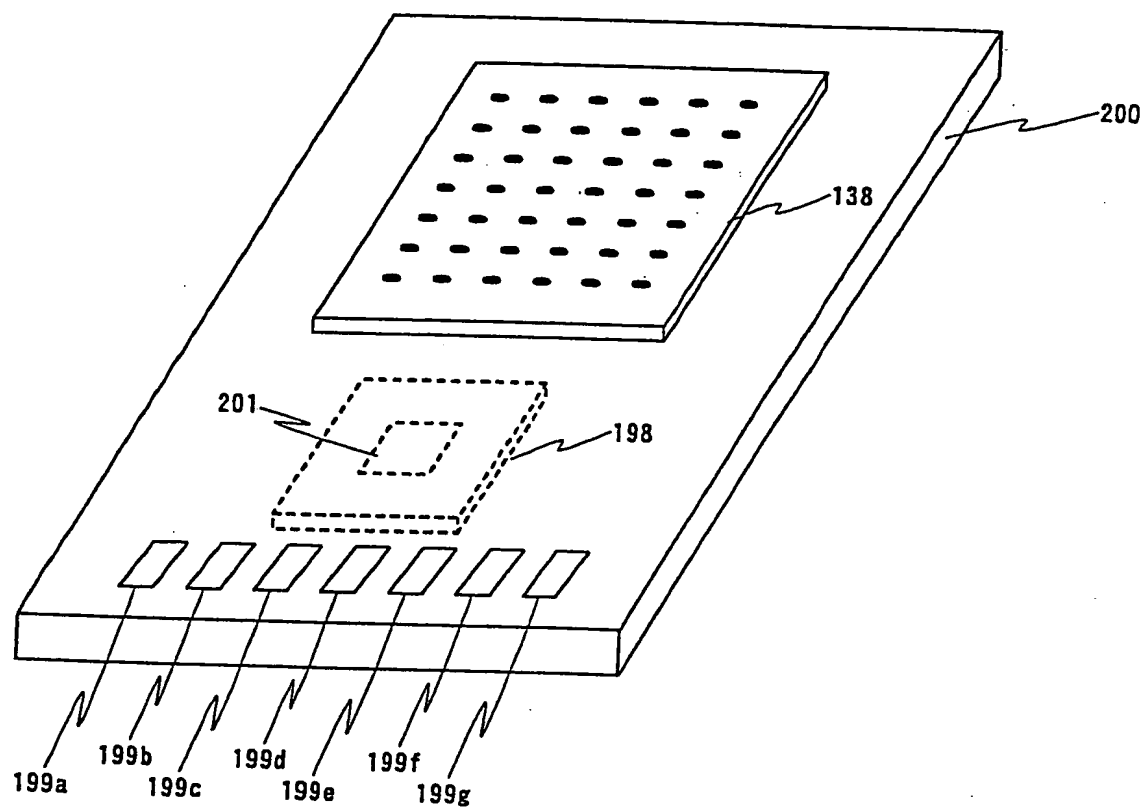
Analysis result

	183 Gene number	184 Gene attribute	185 Selected output
1	Gene A	Information relating disease a	Output
2	Gene B	Information relating disease b	
3	Gene C	Information relating disease c	
4	Gene D	Information relating disease a	Output
5	Gene E	Information relating disease d	
6	Gene F	Information relating disease e	
7	Gene G	Information relating disease a	Output
8	Gene H	Information relating disease b	



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FIG. 46



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FIG. 47

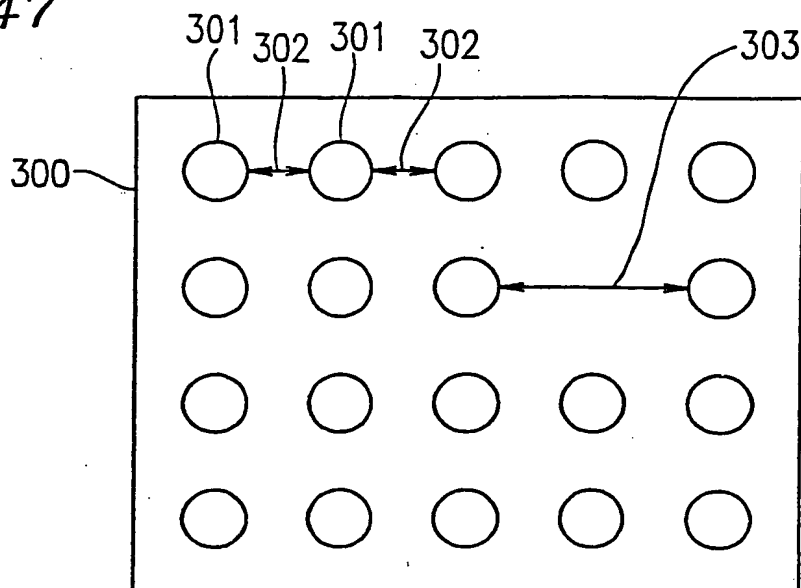
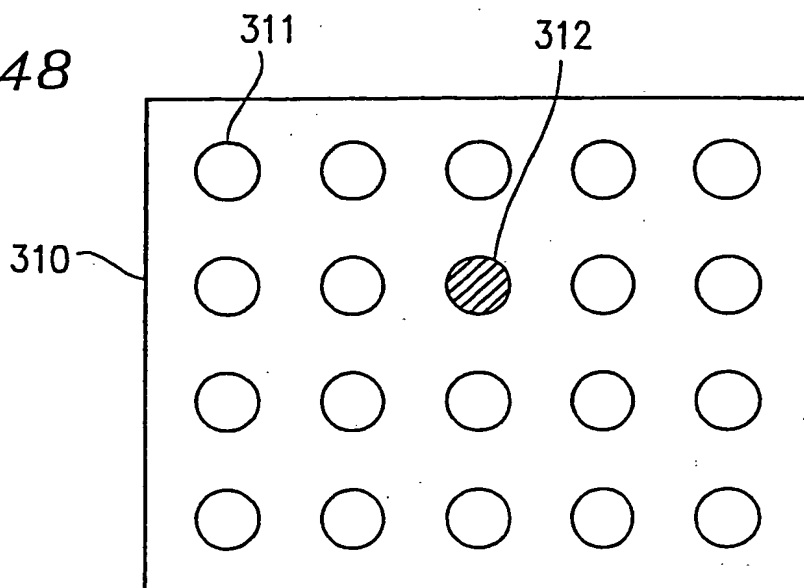


FIG. 48



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FIG. 49

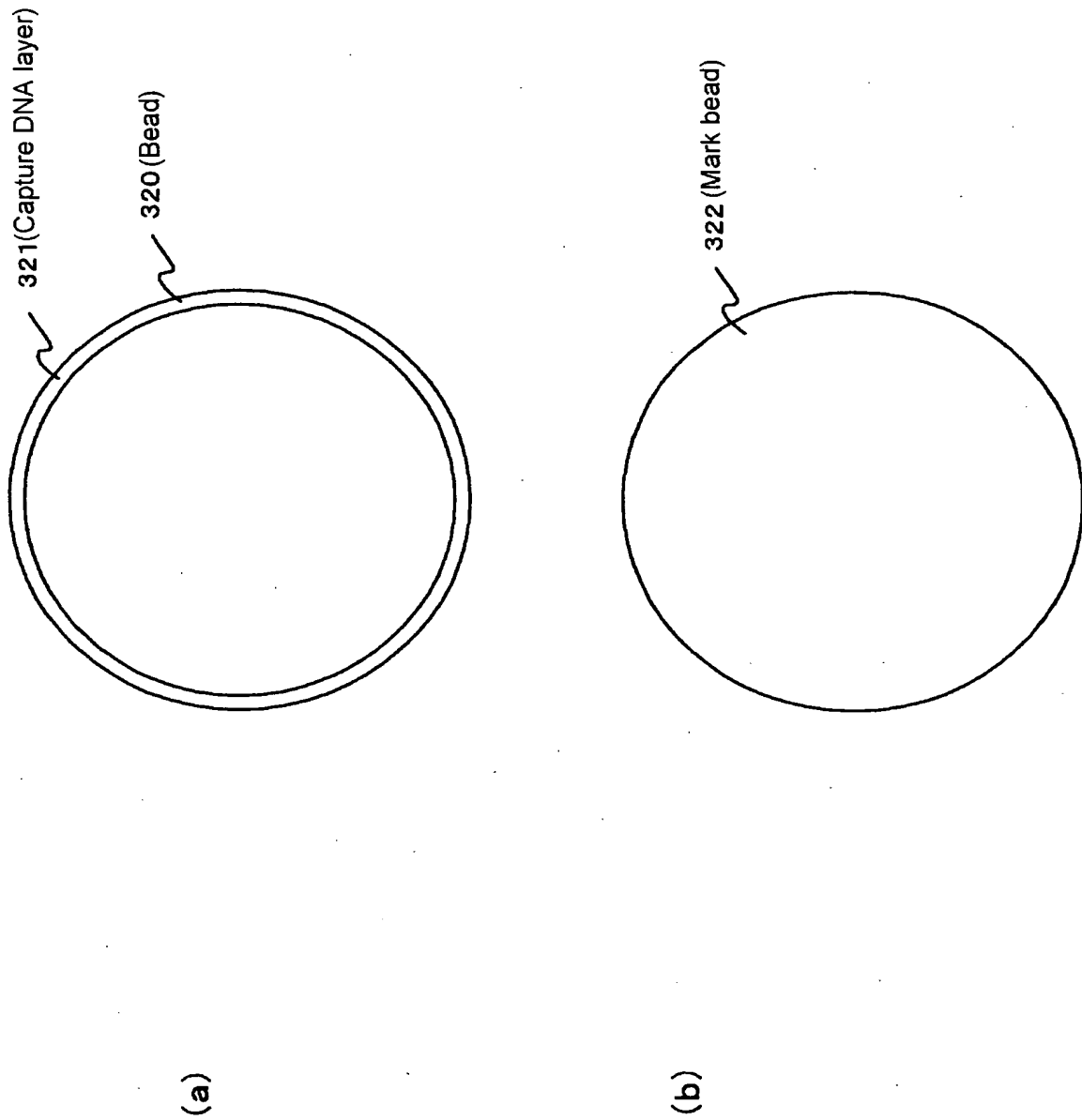


FIG. 50

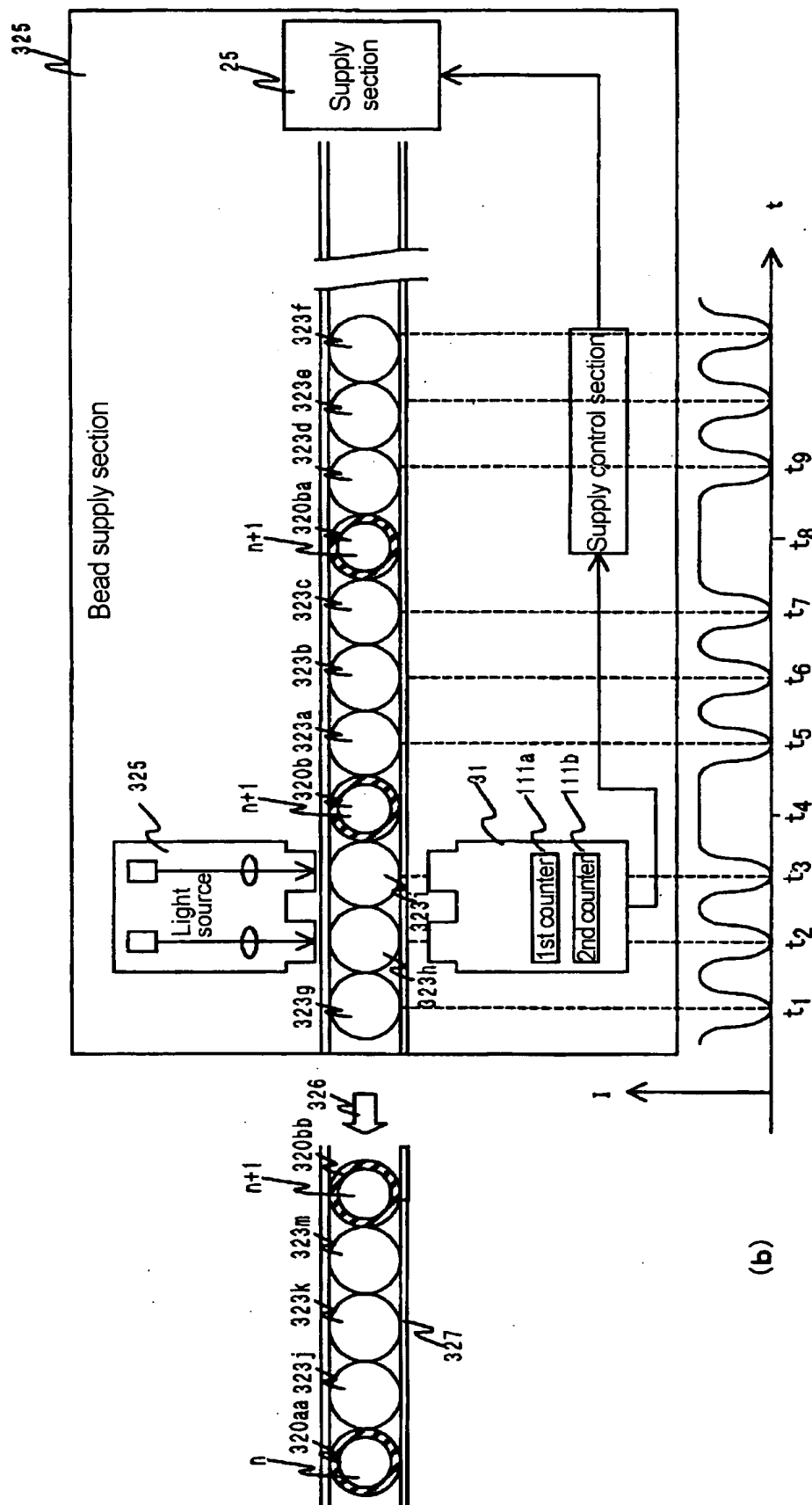


FIG. 51

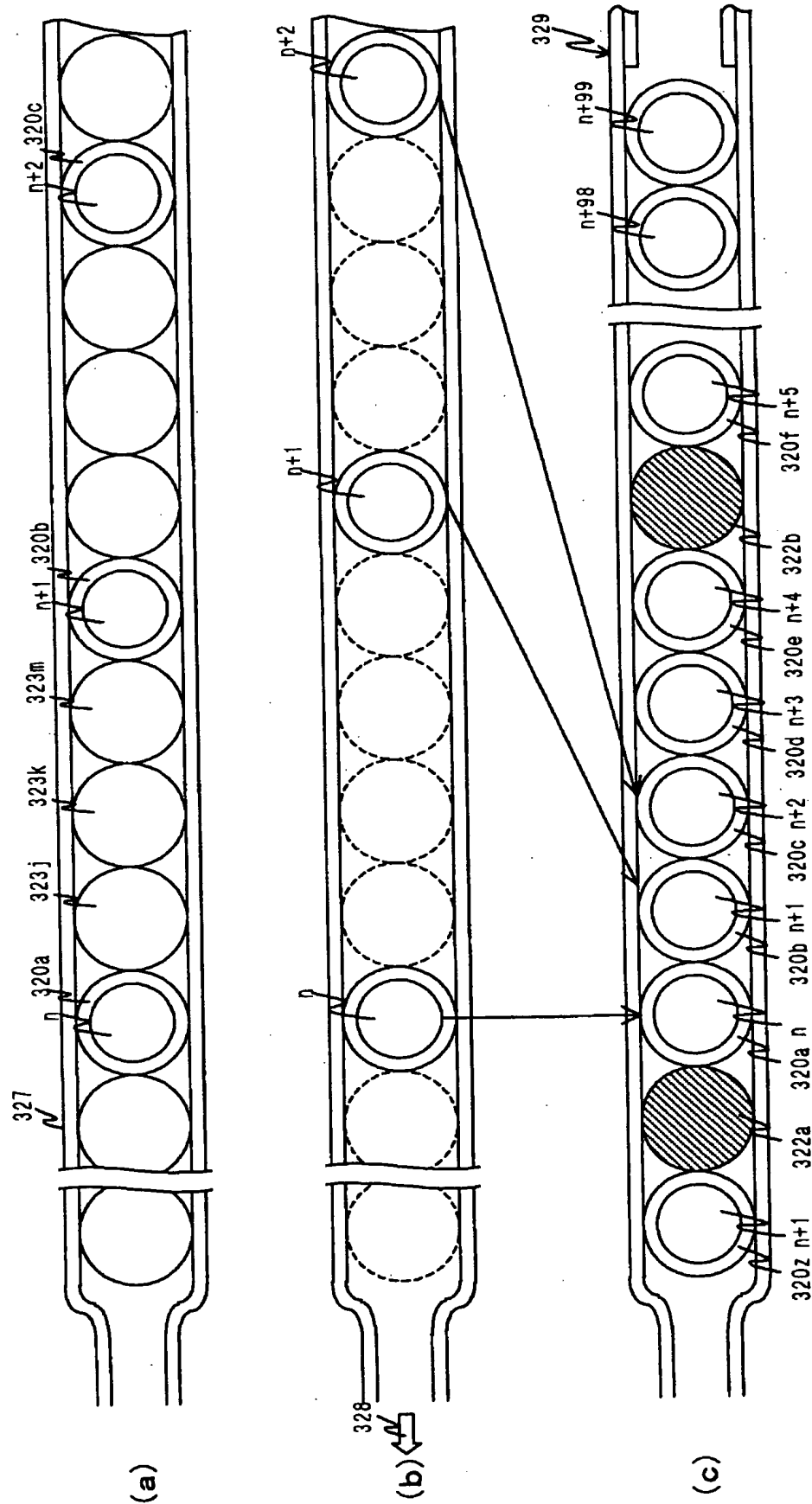


FIG. 52

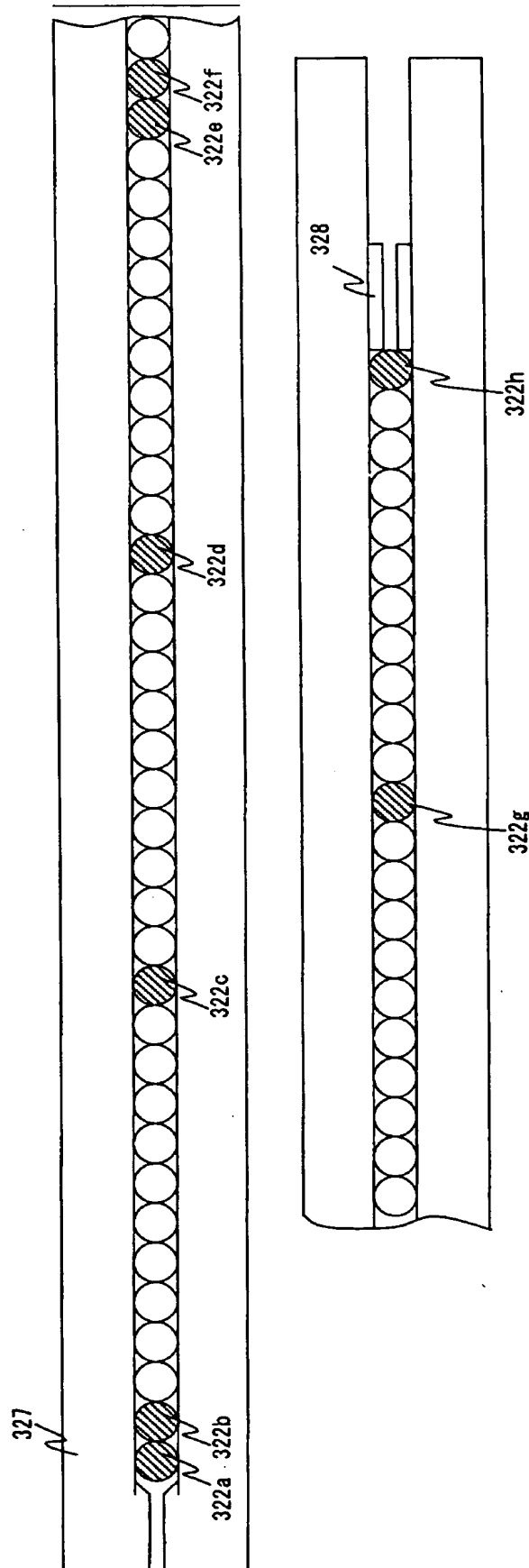
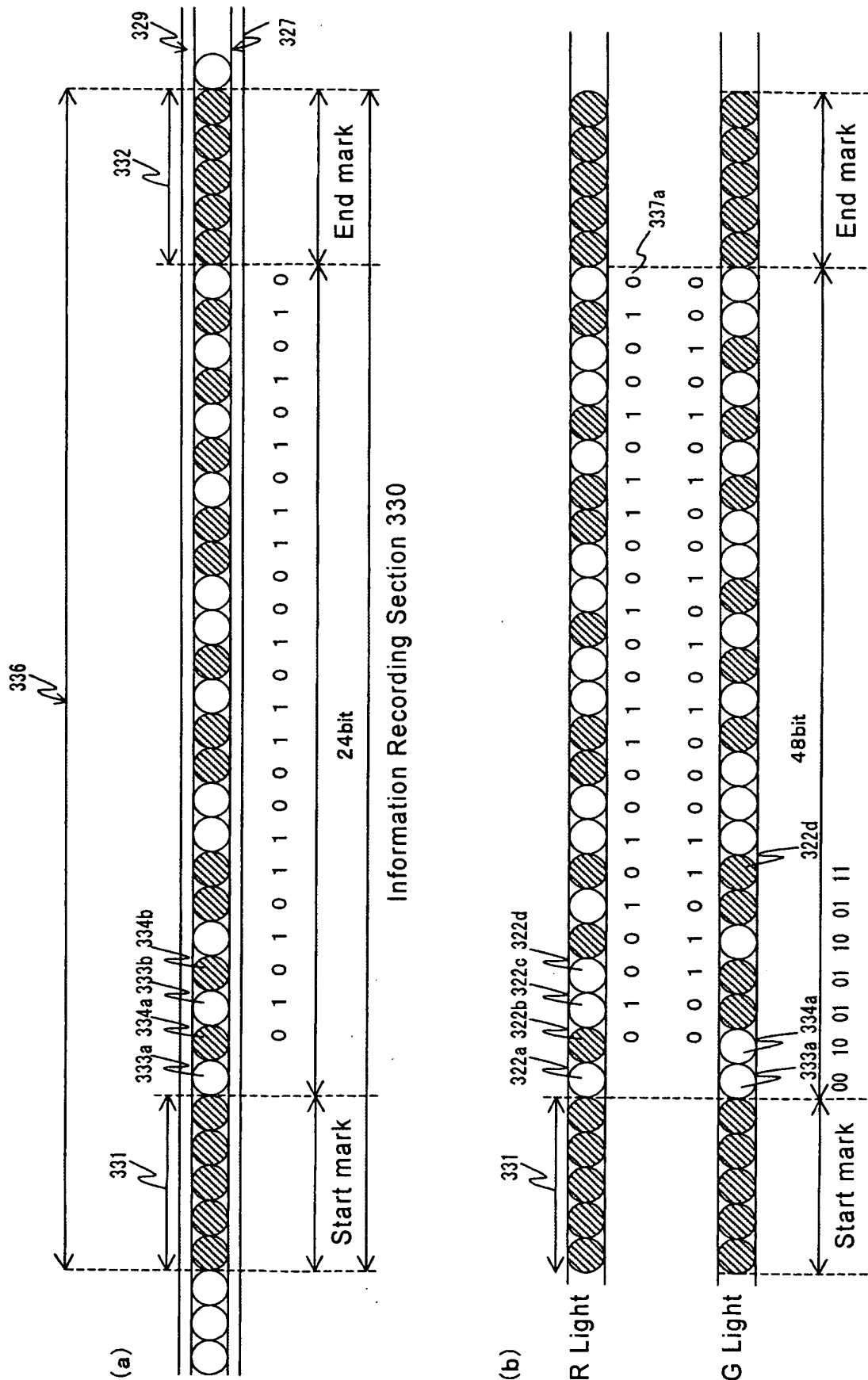


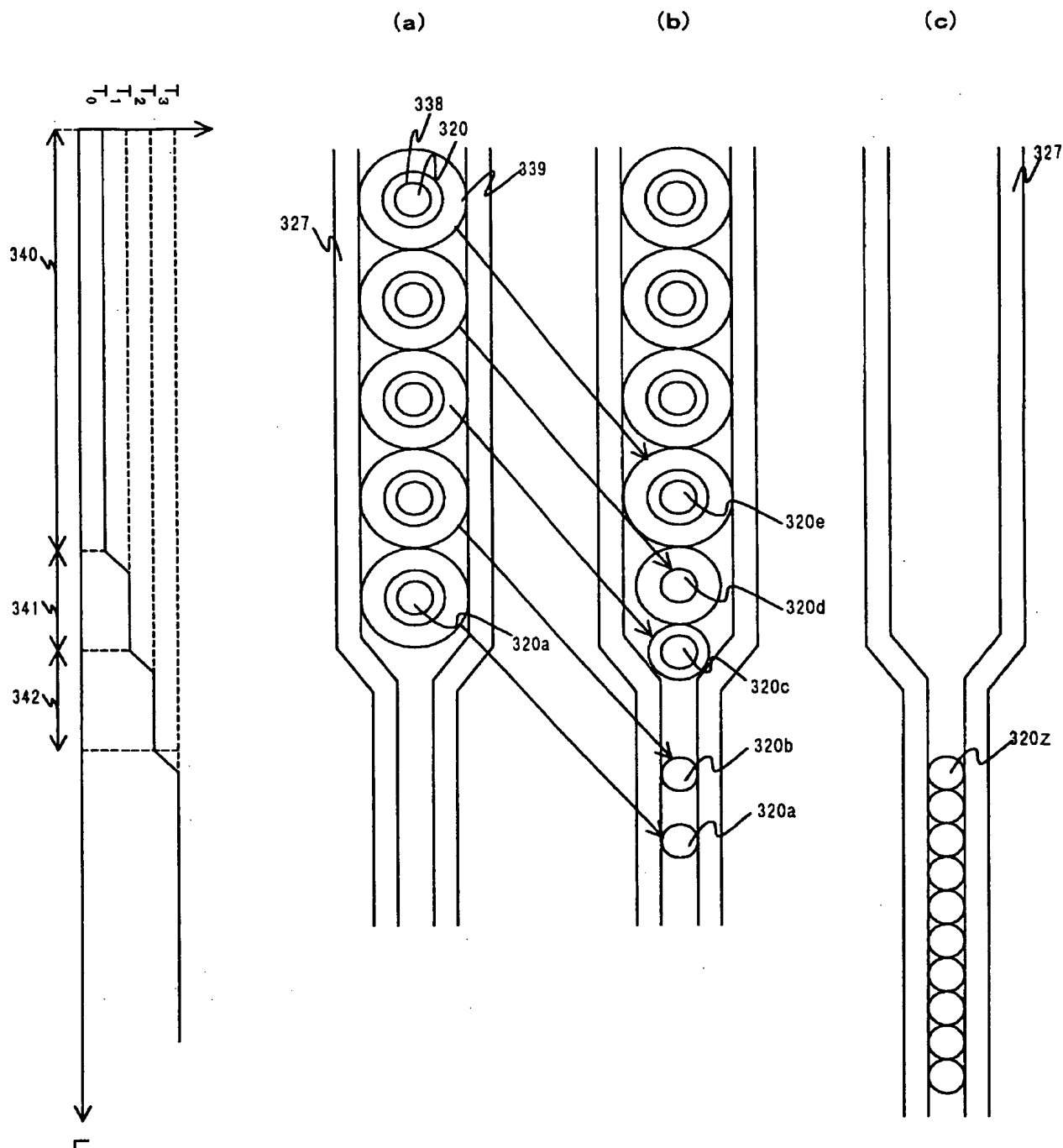


FIG. 54



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FIG. 55



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